# RAYTHEON

# RECEIVING TUBE DATA

price 50 cents

RAYTHEON®

*Excellence in Electronics*

# RADIO AND TELEVISION TUBE DATA

No patent liability is assumed with respects to the use of circuits and tube information contained in this booklet

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RAYTHEON MANUFACTURING COMPANY

*Receiving and Cathode Ray Tube Operations*

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### NOTE

The data contained herein is compiled as a Raytheon service to the field. It is not intended to indicate type availability.

The Raytheon recipe for quality and reliability in radio and television tubes is compounded of these rare but essential ingredients:

**Experience** — the Raytheon reputation for *Excellence in Electronics* had been painstakingly built long before the word "electronics" became significant. Few if any manufacturers have put in the years of intensive tube development and research that are back of every Raytheon Tube.

**Proved Performance** — user confidence in Raytheon Tubes is based not on promises but on the sure knowledge of their past performance in actual service. That is why so many of the leading makers of radio and television receivers have standardized on Raytheon Tubes, and why radio and television service-dealers are so ready to stake their own reputations for quality and service on a recommendation of Raytheon Tubes to their customers.

**Quality Control** — Raytheon technical superiority and production craftsmanship is nowhere more emphatically in evidence than in its tube manufacturing, assembly inspection and testing operations. From inspection of incoming raw materials right through to the finished product the most rigid quality standards are strictly maintained. As a result of this constant effort to achieve the ultimate in quality control, users of Raytheon Tubes find that they not only meet but exceed the performance and life expectations that past experience has led them to expect.

Today, as always, Raytheon Tubes symbolize *Excellence in Electronics.*

# BEFORE USING THE TUBE DATA CHART

## Please read the following notes carefully. They explain the symbols and abbreviations which are used.

The following system for describing the type of base and for referring to the base connection diagram is used in the column headed "Basing Data":

The symbol at the left of the hyphen refers to the base connection diagram.

The symbol at the right of the hyphen indicates the type of base and the number of contact pins in accordance with the following:

First Letter — D = Duo-decal
G = Magnal
H = Diheptal
M = Miniature Base
O = Octal Base
L = Locking Base
R = Radial
S = Standard Base

Second Letter — B = Button Base (a shell is not incorporated)
M = Medium Shell (bakelite)
S = Small Shell (bakelite)
W = Wafer Base (metal tube or bantam tube with metal shell)
GT = Intermediate (bantam) Shell (bakelite)
J = Jumbo Shell

Numeral indicates the number of pins in base.

"B" after numeral indicates bayonet pin in base.

Examples:

| | |
|---|---|
| 4C-SS4B | Diagram 4C, standard small shell with bayonet, 4 pin. |
| 6G-SM6 | Diagram 6G, standard medium shell, 6 pin. |
| 7Q-OW7 | Diagram 7Q, octal wafer base, 7 pin. |

The column headed "Max Size View" shows the number of the tube outline drawing which gives dimensions.

# Heater center tap permits operation at half voltage and twice current.

* Indicates that capacitance is measured with standard tube shield connected to cathode. In the case of a metal type, the metal shell is connected to cathode.

"C" after figure in "Mutual Conductance" column indicates that value is for conversion transconductance. (Used for converter types only.)

"S" after figure in "Plate Volts" column indicates that value shown is anode supply voltage and that it is applied through the indicated value of G, resistor.

Capacitances shown for converter types are for the mixer section only.

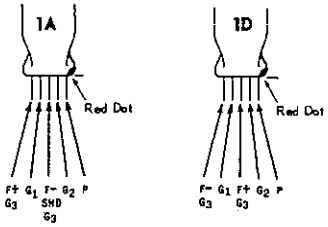
Values of Plate Ma., Screen Ma., and Ouput Watts for push-pull operation are for two tubes, and value of load resistance is from plate to plate.

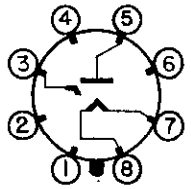
Values of Grid Volts for filament type tubes are measured from the negative filament terminal.

Values of Cutoff Bias are approximate.

| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | VOLTS | AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | IN mmfds | OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00A | TRIODE | FIL | 5.0 | .25 | 4D-SM4B | 14AB | 8.5 | 3.2 | 2.0 | DETECTOR | 45 | 0 | | 1.5 | | 20 | 30000 | 666 | | | | 00A |
| 01A | TRIODE | FIL | 5.0 | .25 | 4D-SM4B | 14BA | 8.1 | 3.1 | 2.2 | AMP CL A | 135 | —9 | | 3 | | 8 | 10000 | 800 | | | | 01A |
| 0Y4<br>0Y4G | GAS DIODE | COLD | | | 4BU-OW5<br>4BU-OS5 | 8BB<br>7AA | | | | HALF-WAVE RECTIFIER | MAX PEAK INVERSE = 300 volts | | | | | MAX Io = 75 madc, MIN Io = 40 madc | | | | | | 0Y4<br>0Y4G |
| 0Z4<br>0Z4G | TWIN DIODE | COLD | | | 4R-OW6<br>4R-OT5 | 8BB<br>7AA | GAS FILLED | | | FULL WAVE RECTIFIER | 300 RMS MAX | | | 90 ma MAX 30 ma MIN | | | | TUBE DROP 24v | | | | 0Z4<br>0Z4G |
| 0Z4A/1003 | TWIN DIODE | COLD | | | 4R-OW6 | 8CA | GAS FILLED | | | FULL WAVE RECTIFIER | 265 RMS MAX 85ma MAX — 30ma MIN. TUBE DROP 24v<br>CONDITION I = SINGLE TUBE OPERATION (Applies to above)<br>365 RMS MAX 85ma MAX — 30ma MIN. TUBE DROP 24v<br>CONDITION II = RESISTANCE PARALLEL OPERATION (Applies to above) | | | | | | | | | | | 0Z4A/1003 |
| 1A3 | DIODE | HTR | 1.4 | 0.15 | 5AP-MB7 | 5AC | | | | DETECTOR | 117 MAX | | 0.5 MAX | | | | | | | | | 1A3 |
| 1A4P | PENTODE | FIL | 2.0 | .06 | 4M-SS4 | 12DA | .007* | 5.0* | 12* | AMP CL A | 180 | —3 | 67.5 | 2.3 | 0.8 | | 1MEG | 750 | | | —15 | 1A4P |
| 1A4-T | TETRODE | FIL | 2.0 | .06 | 4K-SS4 | 12DA | .012* | 4.6 | 11 | AMP CL A | 180 | —3 | 67.5 | 2.3 | 0.7 | 720 | .96MEG | 750 | | | —15 | 1A4-T |
| 1A5GT | PENTODE | FIL | 1.4 | .05 | 6X-OGT7 | 9DB | | | | POWER AMP CLASS A | 90<br>85 | —4.5<br>—4.5 | 90<br>85 | 4.0<br>3.5 | 0.8<br>0.7 | | .3 MEG<br>.3 MEG | 850<br>800 | .115<br>.100 | 25000<br>25000 | | 1A5GT |
| 1A6 | HEPTODE | FIL | 2.0 | .06 | 6L-SS6 | 12DA | .25* | 10.5 | 9.0 | OSC SECT<br>MIXER | 135S<br>180 | .05MEG<br>—3 | 67.5 | 2.3<br>1.3 | 2.4 | | GRID #2 RES.<br>.5 MEG | .02 MEG<br>300C | | | —22.5 | 1A6 |
| 1A7G<br>1A7GT | HEPTODE | FIL | 1.4 | .05 | 7Z-OS8<br>7Z-OW8 | 9ED<br>9CA | .30* | 6.5* | 11* | OSC SECT<br>MIXER | 90<br>90 | .2 MEG<br>0 | 45 | 1.2<br>0.55 | 0.6 | | .6 MEG | 250C | | | —3 | 1A7G<br>1A7GT |
| 1AB5 | PENTODE | FIL | 1.2 | 0.13 | 5BF-L8 | 9AA | 0.025 | 2.8 | 4.2 | VOLTAGE AMP | 150 | —1.5 | 150 | 6.8 | 2.0 | | .125MEG | 1350 | | | —23 | 1AB5 |
| 1AB6 | HEPTODE | FIL | 1.4 | .025 | 7DH-MB7 | 5AC | .36 | 7.6 | 8.4 | MIXER SECT.<br>OSC. SECT. | 85<br>35 | 0<br>.027MEG | 64.5 | 0.65<br>1.5 | 0.17 | OSC | 1 MEG<br>GRID CURR = 85ua | 300C | | | | 1AB6 |
| 1AC6 | HEPTODE | FIL | 1.4 | .05 | 7DH-MB7 | 5AC | .36 | 7.5 | 8.4 | MIXER SECT.<br>OSC. SECT. | 85<br>30 | 0<br>.027MEG | 60 | 0.65<br>1.65 | 0.14 | OSC | 1 MEG<br>GRID CURR = 130ua | 325C | | | | 1AC6 |
| 1AE4 | PENTODE | FIL | 1.25 | .1 | 6AR-MB7 | 5AC | .008* | 3.6* | 4.4* | RF AMPLIFIER | 90 | 0 | 90 | 3.5 | 1.2 | | .5 MEG | 1550 | | | —5 | 1AE4 |
| 1AF4 | PENTODE | FIL | 1.4 | .025 | 6AR-MB7 | 5AC | .008* | 3.8* | 7.6* | RF AMPLIFIER | 90 | 0 | 90 | 1.65 | 0.5 | | 1.8 MEG | 950 | | | —3.5 | 1AF4 |
| 1AF5 | DI-PENT | FIL | 1.4 | .025 | 7DJ-MB7 | 5AC | .2* | 2.5* | 4.3* | DET–AMPLIFIER | 90 | 0 | 90 | 1.1 | 0.4 | | 2 MEG | 600 | | | —3.5 | 1AF5 |
| 1AG4 | PENTODE | FIL | 1.25 | .04 | 1D | 3BA | | | | POWER AMP | 41.4 | —3.6 | 41.4 | 2.4 | 0.6 | | .18MEG | 1000 | .035 | 12000 | | 1AG4 |
| 1AH4 | PENTODE | FIL | 1.25 | .04 | 1A | 3BA | .01 | 3.5 | 4.5 | RF AMPLIFIER | 45 | .5MEG | 45 | 0.75 | 0.2 | | 1.5MEG | 750 | | | —3 | 1AH4 |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

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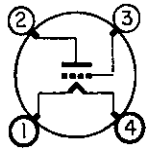
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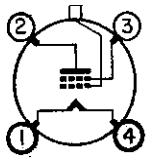
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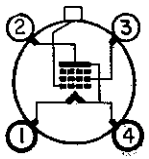
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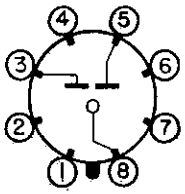
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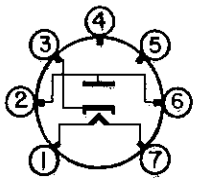
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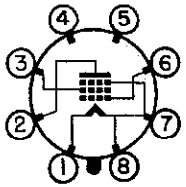
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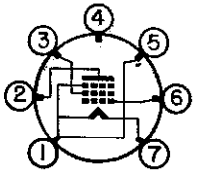
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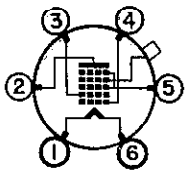
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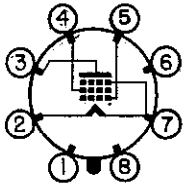
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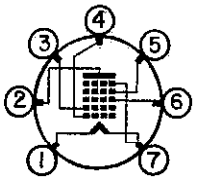
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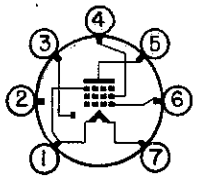
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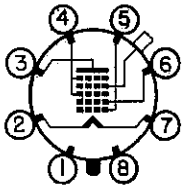
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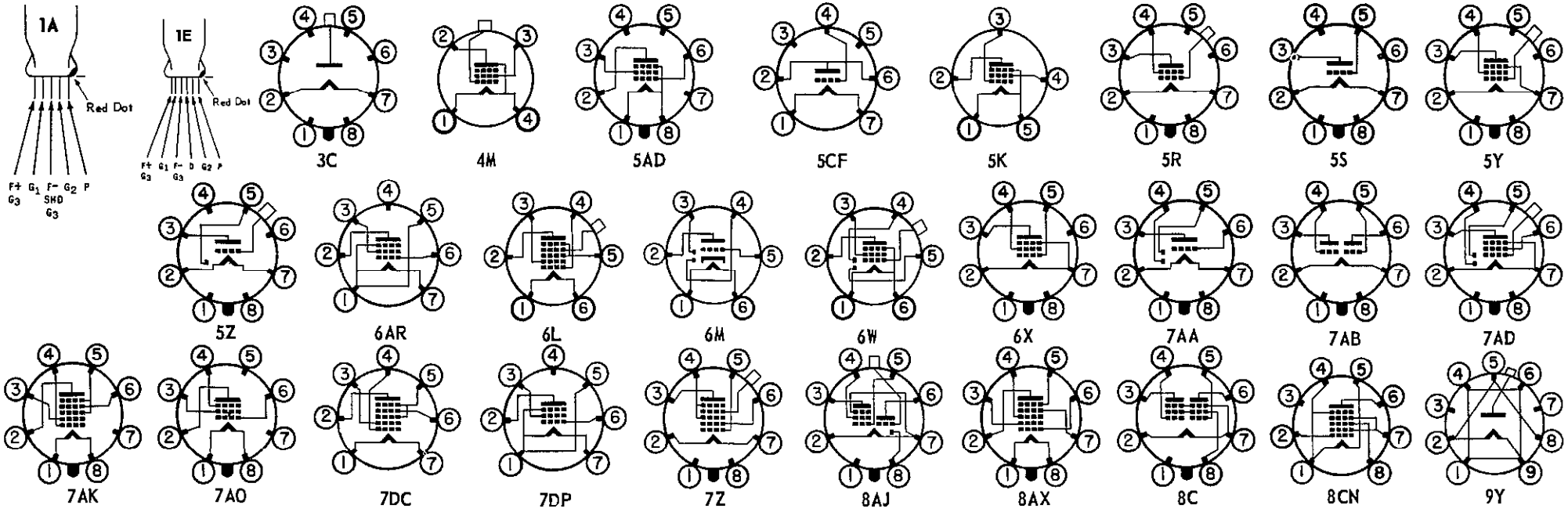
| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | CATHODE HTR OR FIL VOLTS | CATHODE HTR OR FIL AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | CAPACITIES IN mmfds | CAPACITIES OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1AJ4 | PENTODE | FIL | 1.4 | .025 | 7DP-MB7 | 5AC | .01 | 3.3 | 7.8 | RF AMPLIFIER | 90 | 0 | 90 | 1.65 | 0.55 | | 1MEG | 750 | | | | 1AJ4 |
| 1AJ5 | DI-PENT | FIL | 1.25 | .04 | 1E | 3BA | .1 | 1.7 | 2.4 | DET-AMPLIFIER | 45 | 5MEG | 45 | 1.0 | 0.3 | | .3MEG | 425 | | | | 1AJ5 |
| 1AK4 | PENTODE | FIL | 1.25 | .02 | 1A | 3BA | .01 | 3.5 | 4.5 | RF AMPLIFIER | 45 | 5MEG | 45 | 0.75 | 0.2 | | 1.5MEG | 750 | | | —3 | 1AK4 |
| 1AK5 | DI-PENT | FIL | 1.25 | .02 | 1E | 3BA | .01 | 2.0 | 2.7 | DET-AMPLIFIER | 45 | 5MEG | 45 | 0.5 | 0.2 | | 4MEG | 280 | | | | 1AK5 |
| 1AX2 | DIODE | FIL | 1.4 | .65 | 9Y-MB9 | 5CB | | | | HW RECTIFIER | PEAK INVERSE = 25000 volts; Io = 300ua max. | | | | | | | | | | | 1AX2 |
| 1B3GT/ 8016 | DIODE | FIL | 1.25 | 0.2 | 3C-OGT6 | 9ED | | | 1.5 | HALF-WAVE RECT | MAX PEAK INVERSE = 30000 volts MAX AVE Io = 2 madc | | | | | | | | | | | 1B3GT/ 8016 |
| 1B4/951 | PENTODE | FIL | 2.0 | .06 | 4M-SS4 | 12DA | .007* | 5.0 | 11 | AMP CL A | 180<br>90 | —3<br>—3 | 67.5<br>67.5 | 1.7<br>1.6 | 0.6<br>0.7 | | 1.5MEG<br>1MEG | 650<br>600 | | | —8<br>—8 | 1B4/951 |
| 1B5/25S | DUO-DI TRIODE | FIL | 2.0 | .06 | 6M-SS6 | 12BA | 3.6 | 2.0 | 3.0 | AMPLIFIER CLASS A | 135 | —3 | | 0.8 | | 20 | 35000 | 575 | | | | 1B5/25S |
| 1B7G<br>1B7GT | HEPTODE | FIL | 1.4 | .1 | 7Z-OS8<br>7Z-OW8 | 9ED<br>9CA | .34* | 7.0* | 7.5* | OSC SECT<br>MIXER | 90<br>90 | .2MEG<br>0 | 45 | 1.6<br>1.5 | 1.3 | | .5MEG | 350C | | | —14.5 | 1B7G<br>1B7GT |
| 1B8GT | DI-TRI PENTODE | FIL | 1.4 | 0.1 | 8AJ-OS8 | 9CA | | | | TRI CL A<br>PENT CL A | 90<br>90 | 0<br>—6.0 | 90 | 0.15<br>6.3 | 1.4 | 66 | 0.24MEG | 275<br>1150 | .210 | 14000 | | 1B8GT |
| 1C3 | TRIODE | FIL | 1.4 | .05 | 5CF-MB7 | 5AC | 1.8* | 0.9* | 4.2* | AMP CL A | 90 | —3 | | 1.4 | | 14.5 | | 760 | | | | 1C3 |
| 1C5GT | PENTODE | FIL | 1.4 | .1 | 6X-OGT7 | 9DB | | | | POWER AMP CLASS A | 90<br>83 | —7.5<br>—7 | 90<br>83 | 7.5<br>7.0 | 1.6<br>1.6 | 180<br>165 | .12MEG<br>.11MEG | 1550<br>1500 | .240<br>.200 | 8000<br>9000 | | 1C5GT |
| 1C6<br>1C7G | HEPTODE | FIL | 2.0 | .12 | 6L-SS6<br>7Z-OS8 | 12DA<br>12CA | .3*<br>.26* | 10<br>10* | 10<br>14* | OSC SECT<br>MIXER | 180S<br>180 | .05MEG<br>—3 | 67.5 | 3.3<br>1.5 | 2.0 | | GRID #2 RES. .7MEG | .02 MEG<br>325C | | | —14 | 1C6<br>1C7G |
| 1C8 | HEPTODE | FIL | 1.25 | .04 | 8CN | 3AA | .25* | 6.5* | 4.0* | CONVERTER | 30 | 0 | 30 | 0.32 | 0.75 | | .3MEG | 100C | | | | 1C8 |
| | | | | | | | | | | | OSC GRID RES = .1 MEG, OSC GRID CURR = 30ua | | | | | | | | | | | |
| 1D5G-P | PENTODE | FIL | 2.0 | .06 | 5Y-OS7 | 12CA | .007* | 5.0* | 11* | AMPLIFIER CLASS A | 180<br>90 | —3<br>—3 | 67.5<br>67.5 | 2.3<br>2.2 | 0.8<br>0.9 | 750<br>425 | 1MEG<br>.6MEG | 750<br>720 | | | —15<br>—15 | 1D5G-P |
| 1D5GT | TETRODE | FIL | 2.0 | .06 | 5R-OS7 | 12CA | .012* | 4.6* | 11* | AMP CL A | 180 | —3 | 67.5 | 2.3 | 0.7 | | .96MEG | 750 | | | —15 | 1D5GT |
| 1D7G | HEPTODE | FIL | 2.0 | .06 | 7Z-OS8 | 12CA | .30* | 10* | 14* | OSC SECT<br>MIXER | 180S<br>180 | .05MEG<br>—3 | 67.5 | 2.3<br>1.3 | 2.4 | | GRID #2 RES. .5MEG | .02 MEG<br>300C | | | —22.5 | 1D7G |
| 1D8GT | DI-TRI PENTODE | FIL | 1.4 | .1 | 8AJ-OGT8 | 9EA | | | | TRI CL A<br>PENT CL A | 90<br>90 | 0<br>—9 | 90 | 1.1<br>5.0 | 1.0 | 25 | 43500<br>.2MEG | 575<br>925 | .200 | 12000 | | 1D8GT |
| 1E4G | TRIODE | FIL | 1.4 | .05 | 5S-OS7 | 9FC | 2.4 | 2.4 | 6.0 | AMPLIFIER CLASS A | 90<br>90 | —3<br>0 | | 1.4<br>4.5 | | 14.5<br>14.5 | 19000<br>11200 | 760<br>1300 | | | | 1E4G |
| 1E5G-P | PENTODE | FIL | 2.0 | .06 | 5Y-OS7 | 12CA | .007* | 5.5* | 12* | AMPLIFIER CLASS A | 180<br>90 | —3<br>—3 | 67.5<br>67.5 | 1.7<br>1.6 | 0.6<br>0.7 | 975<br>600 | 1.5MEG<br>1MEG | 650<br>600 | | | —8<br>—8 | 1E5G-P |
| 1E7G | TWIN PENTODE | FIL | 2.0 | .24 | 8C-OS8 | 12BA | | PUSH-PULL | | CL A 1 SECT<br>CL A 2 SECT | 135<br>135 | —4.5<br>—7.5 | 135<br>135 | 7.5<br>14 | 2.2<br>4.0 | | .26MEG | 1425 | .290<br>.575 | 16000<br>24000 | | 1E7G |
| 1F4<br>1F5G | PENTODE | FIL | 2.0 | .12 | 5K-SM5<br>6X-OM7 | 14BA<br>14BA | | PUSH-PULL | | PR AMP CL A<br>CL AB 2 TUBE | 135<br>180 | —4.5<br>—7.5 | 135<br>180 | 8.0<br>19 | 2.4<br>5.5 | | .20MEG | 1700 | .310<br>1.25 | 16000<br>20000 | | 1F4<br>1F5G |
| 1F6<br>1F7G-H | DUO-DI PENTODE | FIL | 2.0 | .06 | 6W-SS6<br>7AD-OS8 | 12DA<br>12CA | .007*<br>.01* | 4<br>3.8* | 9<br>9.5* | AMPLIFIER CLASS A | 180 | —1.5 | 67.5 | 2.2 | 0.7 | | 1MEG | 650 | | | —12 | 1F6<br>1F7G-H |
| 1G4GT | TRIODE | FIL | 1.4 | .05 | 5S-OGT7 | 9DB | | | | AMP CL A | 90 | —6 | | 2.3 | | 8.8 | 10700 | 825 | | | | 1G4GT |
| 1G5G | PENTODE | FIL | 2.0 | .12 | 6X-OM7 | 14BA | | | | POWER AMP CLASS A | 135<br>90 | —13.5<br>—6 | 135<br>90 | 8.7<br>8.5 | 2.5<br>2.5 | | .16MEG<br>.13MEG | 1550<br>1500 | .550<br>.250 | 9000<br>8500 | | 1G5G |
| 1G6GT | TWIN TRIODE | FIL | 1.4 | .1 | 7AB-OGT8 | 9DB | | | | CL A 1 SECT<br>CL B 2 SECT | 90<br>90 | 0<br>0 | | 1.0<br>2.0 | | 30<br>MAX SIG PLATE CUR = 14ma | 45000 | 675 | .675 | 12000 | | 1G6GT |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | VOLTS | AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES C-P mmfds | IN mmfds | OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1H4G | TRIODE | FIL | 2.0 | .06 | 5S-OS6 | 12BA | 5.0* | 3.0* | 3.0* | AMP CL A<br>CL B 2 TUBE | 180<br>157.5 | —13.5<br>—15 | | 3.1<br>1.0 | | 9.3 | 10300 | 900 | (SEE TYPE 30<br>2.1 | 8000 | ALSO) | 1H4G |
| 1H5GT | DI-TRI | FIL | 1.4 | .05 | 5Z-OW7 | 9CA | | | | VOLTAGE AMP | 90 | 0 | | 0.15 | | 65 | .24MEG | 275 | | | | 1H5GT |
| 1H6G | DUO-DI TRIODE | FIL | 2.0 | .06 | 7AA-OS8 | 12BA | 3.6* | 2.0* | 3.0* | AMPLIFIER CLASS A | 135 | —3 | | 0.8 | | 20 | 35000 | 575 | | | | 1H6G |
| 1J5G | PENTODE | FIL | 2.0 | .12 | 6X-0M7 | 14BA | | | | PR AMP CL A | 135 | —16.5 | 135 | 7.0 | 2.0 | 100 | .1 MEG | 1000 | .45 | 13500 | | 1J5G |
| 1J6G | TWIN TR | FIL | 2.0 | .24 | 7AB-OS8 | 12BA | | | | CLASS B<br>TWO SECT | 135<br>135 | 0<br>—6 | | 10 NO SIG<br>0.2 NO SIG | | | | | 2.2<br>1.6 | 10000<br>10000 | | 1J6G |
| 1L4 | PENTODE | FIL | 1.4 | 0.05 | 6AR-MB7 | 5AC | 0.008 | 3.6 | 7.5 | AMP CL A | 90<br>90 | 0<br>0 | 90<br>67.5 | 4.5<br>2.9 | 2.0<br>1.2 | | 0.35MEG<br>0.6 MEG | 1025<br>925 | | | —8<br>—6 | 1L4 |
| 1L6 | HEPTODE | FIL | 1.4 | .05 | 7DC-MB7 | 5AC | .3 | 7.4 | 12 | CONVERTER | 90 | 0 | 45 | 0.5 | 0.6 | | .65MEG | 300C | $G_2$ = 90 V<br>$Ic_2$ = 1.2ma | | —3 | 1L6 |
| 1LA4 | PENTODE | FIL | 1.4 | .05 | 5AD-L8 | 9AC | | | | POWER AMP<br>CLASS A | 90<br>85 | —4.5<br>—4.5 | 90<br>85 | 4.0<br>3.5 | 0.8<br>0.7 | | .3 MEG<br>.3 MEG | 850<br>800 | .115<br>.100 | 25000<br>25000 | | 1LA4 |
| 1LA6 | HEPTODE | FIL | 1.4 | .05 | 7AK-L8 | 9AC | .40 | 7.7 | 8.0 | OSC SECT<br>MIXER | 90<br>90 | .2 MEG<br>0 | 45 | 1.2<br>0.55 | 0.6 | | .6 MEG | 250C | | | —3 | 1LA6 |
| 1LB4 | PENTODE | FIL | 1.4 | .05 | 5AD-L8 | 9AC | | | | PR AMP CL A | 90<br>45 | —9<br>—4.5 | 90<br>45 | 5.0<br>1.6 | 1.0<br>0.3 | | .2 MEG<br>.3 MEG | 925<br>650 | .200<br>.035 | 12000<br>20000 | | 1LB4 |
| 1LB6 | HEPTODE | FIL | 1.4 | 0.05 | 8AX-L8 | 9AC | 0.20 | 8.0 | 7.0 | MIXER SECT<br>OSC SECT | 90<br>OSC Grid Volt = 0 | 0 | 67.5 | 0.40<br>Peak OSC Grid Voltage Applied to Grid #3 = 10 min Volts | 2.2 | | 2 MEG | 100C | | | —4.5 | 1LB6 |
| 1LC5 | PENTODE | FIL | 1.4 | 0.05 | 7AO-L8 | 9AC | 0.007 | 3.2 | 7.0 | AMP CL A | 90<br>45 | 0<br>0 | 45<br>45 | 1.15<br>1.10 | 0.20<br>0.25 | | 1.5MEG<br>0.7MEG | 775<br>750 | | | —3<br>—3 | 1LC5 |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

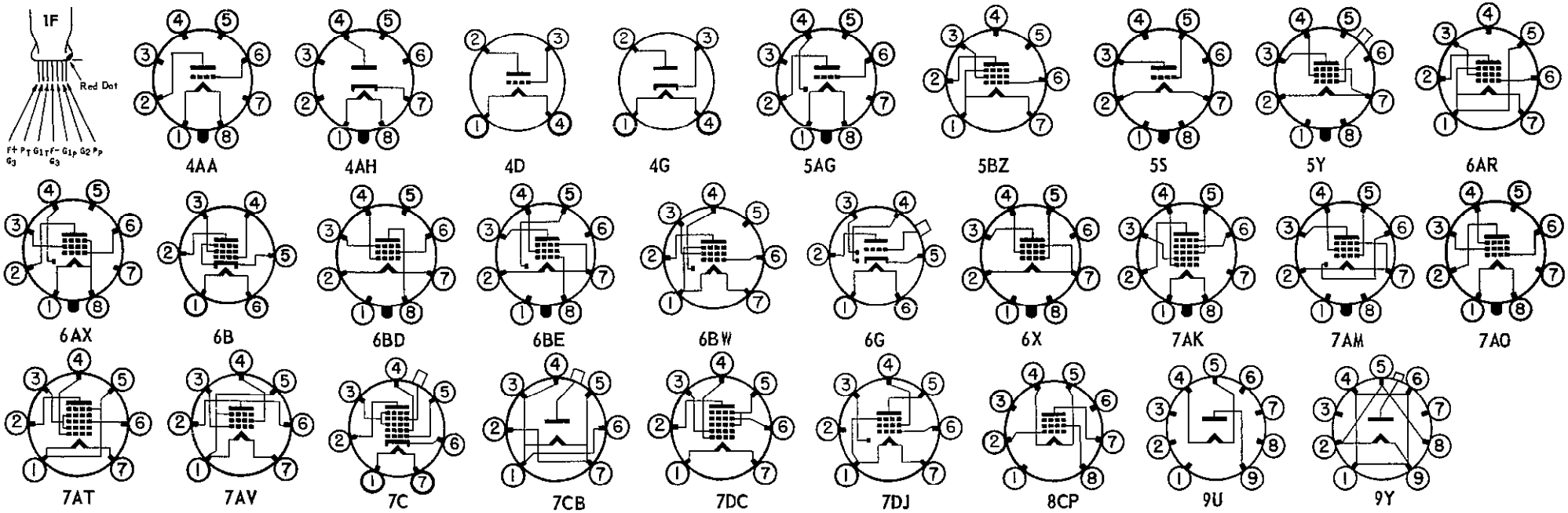


| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | VOLTS | AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | IN mmfds | OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1LC6 | HEPTODE | FIL | 1.4 | 0.05 | 7AK-L8 | 9AC | 0.28 | 9.0 | 5.5 | MIXER SECT<br>OSC SECT | 90<br>45 | 0<br>.2 MEG | 35 | 0.75<br>1.4 | 0.70 | | .65MEG | 275C | | | —3 | 1LC6 |
| 1LD5 | DI-PENT | FIL | 1.4 | 0.05 | 6AX-L8 | 9AC | 0.20 | 3.2 | 6.0 | AMP CL A | 90<br>45 | 0<br>0 | 45<br>45 | 0.60<br>0.55 | 0.10<br>0.12 | | 0.95MEG<br>0.90MEG | 600<br>550 | | | | 1LD5 |
| 1LE3 | TRIODE | FIL | 1.4 | 0.05 | 4AA-L8 | 9AC | 1.7 | 1.7 | 3.0 | AMP CL A | 90<br>90 | —3<br>0 | | 1.4<br>4.5 | | 14.5<br>14.5 | 19000<br>11200 | 760<br>1300 | | | | 1LE3 |
| 1LF3 | TRIODE | FIL | 1.4 | 0.05 | 4AA-L8 | 9AC | 1.7 | 1.7 | 3.0 | VOLTAGE AMP | 90 | —3 | | 1.4 | | 14.5 | | 760 | | | | 1LF3 |
| 1LG5 | PENTODE | FIL | 1.4 | 0.05 | 7AO-L8 | 9AC | 0.007 | 3.2 | 7.0 | VOLTAGE AMP | 90 | 0 | 45 | 1.7 | 0.4 | | 1MEG | 800 | | | —10 | 1LG5 |
| 1LH4 | DI-TRI | FIL | 1.4 | .05 | 5AG-L8 | 9AC | | | | AMP CL A | 90 | 0 | | 0.15 | | 65 | .24MEG | 275 | | | | 1LH4 |
| 1LN5 | PENTODE | FIL | 1.4 | .05 | 7AO-L8 | 9AC | .007 | 3.4 | 8.0 | AMP CL A | 90 | 0 | 90 | 1.6 | 0.35 | 880 | 1.1 MEG | 800 | | | —4.5 | 1LN5 |
| 1N5GT | PENTODE | FIL | 1.4 | .05 | 5Y-OW7 | 9CA | .007* | 3.0 | 10.0 | AMP CL A | 90 | 0 | 90 | 1.2 | 0.3 | 1160 | 1.5 MEG | 750 | | | —4 | 1N5GT |
| 1N6G<br>1N6GT | DI-PENT | FIL | 1.4 | .05 | 7AM-OS8<br>7AM-OW8 | 9FC<br>9DB | | | | PR AMP CL A | 90 | —4.5 | 90 | 3.4 | 0.7 | | .3 MEG | 800 | .10 | 25000 | | 1N6G<br>1N6GT |
| 1P5GT | PENTODE | FIL | 1.4 | .05 | 5Y-OW7 | 9CA | .007* | 3.0 | 10.0 | AMP CL A | 90 | 0 | 90 | 2.3 | 0.7 | | .8 MEG | 750 | | | —12 | 1P5GT |
| 1Q5GT | BEAM PWR AMP | FIL | 1.4 | .1 | 6X-OGT7 | 9DB | | | | POWER AMP<br>CLASS A | 90<br>85 | —4.5<br>—5.0 | 90<br>85 | 9.5<br>7.0 | 1.3<br>0.8 | | | 2200<br>1950 | .27<br>.25 | 8000<br>9000 | | 1Q5GT |
| 1R4/1294 | DIODE | HTR | 1.4 | 0.15 | 4AH-L8 | 9AC | | | | DETECTOR | MAX PLATE = 117 volts (RMS) | | | | | | | MAX Io = 1madc | | | | 1R4/1294 |
| 1R5 | HEPTODE | FIL | 1.4 | .05 | 7AT-MB7 | 5AC | .4 | 7.0 | 7.0 | OSC SECT<br>MIXER | OSC GRID RES —.1 MEG<br>90 | 0 | 67.5 | 1.7 | OSC GRID CUR —.25<br>3.0 | | .5 MEG | MA<br>300C | | | —15 | 1R5 |
| 1S4 | PENTODE | FIL | 1.4 | .1 | 7AV-MB7 | 5AC | | | | PR AMP CL A | 90<br>45 | —7<br>—4.5 | 67.5<br>45 | 7.4<br>3.8 | 1.4<br>0.8 | | .1 MEG<br>.1 MEG | 1575<br>1250 | .270<br>.065 | 8000<br>8000 | | 1S4 |
| 1S5 | DIODE PENTODE | FIL | 1.4 | .05 | 7DI-MB7 | 5AC | | | | DETECTOR<br>AMP CL A | 67.5 | 0 | 67.5 | 1.6 | 0.4 | | .6 MEG | 625 | | | | 1S5 |
| 1SA6GT | PENTODE | FIL | 1.4 | 0.05 | 6BD-OW8 | 9BC | 0.01 | 5.2 | 8.6 | AMP CL A | 90<br>45 | 0<br>0 | 67.5<br>45 | 2.45<br>1.10 | 0.68<br>0.30 | | 0.8 MEG<br>0.7 MEG | 970<br>750 | | | —5.5<br>—3.5 | 1SA6GT |
| 1SB6GT | DI-PENT | FIL | 1.4 | 0.05 | 6BE-OS7 | 9DB | 0.25 | 3.2 | 3.0 | DET AMP CL A | 90<br>45 | 0<br>0 | 67.5<br>45 | 1.45<br>0.6 | 0.38<br>0.16 | | 0.7 MEG<br>0.9 MEG | 665<br>500 | | | | 1SB6GT |
| 1T4 | PENTODE | FIL | 1.4 | .05 | 6AR-MB7 | 5AC | .01 | 3.6 | 7.5 | AMP CL A | 90<br>45 | 0<br>0 | 67.5<br>45 | 3.5<br>1.7 | 1.4<br>0.7 | | .5 MEG<br>.35MEG | 900<br>700 | | | —16<br>—10 | 1T4 |
| 1T5GT | BM PWR | FIL | 1.4 | .05 | 6X-OGT7 | 9DB | | | | PR AMP CL A | 90 | —6 | 90 | 6.5 | 0.8 | | | 1150 | .17 | 14000 | | 1T5GT |
| 1U4 | PENTODE | FIL | 1.4 | 0.05 | 6AR-MB7 | 5AC | 0.008 | 3.6 | 7.5 | VOLTAGE AMP | 90 | 0 | 90 | 1.6 | 0.5 | | 1 MEG | 900 | | | —4 | 1U4 |
| 1U5 | DI-PENT | FIL | 1.4 | 0.05 | 6BW-MB7 | 5AC | | | | DET-AMP | 67.5 | 0 | 67.5 | 1.6 | 0.4 | | 0.6 MEG | 625 | | | | 1U5 |
| 1U6 | HEPTODE | FIL | 1.4 | .025 | 7DC-MB7 | 5AC | .4* | 8.0* | 12* | OSC SECT<br>MIXER SECT | 90<br>90 | .2 MEG<br>0 | 45 | 1.1<br>0.55 | OSC GRID CURR = .035ma<br>0.55 | | .6 MEG 275C | | | | —3 | 1U6 |
| 1-V | DIODE | HTR | 6.3 | .3 | 4G-SS4 | 12BA | | | | H W RECT | 325 RMS MAX | | | 45 DC MAX TUBE DROP 20v AT 90ma DC | | | | | | | | 1-V |
| 1V2 | DIODE | FIL | 0.625 | .3 | 9U-MB9 | 5BB | | | | H W RECTIFIER | MAX PEAK INVERSE = 7500 V; MAX Io = 550ua | | | | | | | | | | | 1V2 |
| 1V6 | TRIODE PENTODE | FIL | 1.25 | .04 | 1F | 3BA | 1.2<br>.05 | 4.0<br>3.2 | 1.9<br>2.4 | TRIODE SECT<br>PENTODE SECT | 45<br>45 | 1 MEG<br>5 MEG | 45 | 0.4<br>0.4 | 0.15 | | OSC GRID CURR = 12ua<br>1 MEG 200C | | | | —3.5 | 1V6 |
| 1W4 | PENTODE | FIL | 1.4 | .05 | 5BZ-MB7 | 5AC | .1* | 3.6* | 7.0* | POWER AMP | 90 | —9 | 90 | 5.0 | 1.0 | | .25MEG | 925 | .2 | 12000 | | 1W4 |
| 1W5 | PENTODE | FIL | 1.25 | .04 | 8CP- | 3AA | .01* | 2.3* | 3.5* | RF AMPLIFIER | 67.5 | 0 | 67.5 | 1.85 | .75 | | .7 MEG | 735 | | | —5 | 1W5 |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | VOLTS | AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | IN mmfds | OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1X2 | DIODE | FIL | 1.25 | .2 | 9Y-MB9 | 5CA | | | | HW RECTIFIER | MAX. PEAK INVERSE = 15,000 V; MAX Io = 1ma | | | | | | | | | | | 1X2 |
| 1X2A | DIODE | FIL | 1.25 | .2 | 9Y-MB9 | 5CA | | | | HW RECTIFIER | MAX. PEAK INVERSE = 20,000 V; MAX Io = 1.1ma | | | | | | | | | | | 1X2A |
| 1X2B | DIODE | FIL | 1.25 | .2 | 9Y-MB9 | 5CA | | | | HW RECTIFIER | MAX. PEAK INVERSE = 22,000 V; MAX Io = 0.5ma | | | | | | | | | | | 1X2B |
| 1Z2 | DIODE | FIL | 1.5 | 0.3 | 7CB-MB7 | 5CB | | | | HALF-WAVE RECT | MAX. PEAK INVERSE = 20,000 MAX Io = 2 madc | | | | | | | | | | | 1Z2 |
| 2A3 | TRIODE | FIL | 2.5 | 2.5 | 4D-SM4 | 16AA | | | | PR AMP CL A<br>PUSH-PULL<br>CL AB 2 TUBE | 250<br>300<br>300 | —45<br>—62<br>SELF | | 60<br>80<br>80 | 4.2<br>780 OHM BIAS RES | | 800 | 5250 | 3.5<br>15<br>10 | 2500<br>3000<br>5000 | | 2A3 |
| 2A4G | GAS TRI | FIL | 2.5 | 2.5 | 5S-OS7 | 12BA | | | | THYRATRON | 200 RMS MAX | | | 100 DC MAX TUBE DROP 12v | | | | | | | —9 | 2A4G |
| 2A5 | PENTODE | HTR | 2.5 | 1.75 | 6B-SM6 | 14BA | TRIODE CONNECTION | | | PR AMP CL A<br>CL AB 2 TUBE | 250<br>350 | —20<br>—38 | | 31<br>48 | 6.8<br>(SEE TYPE 6F6G ALSO) | | 2600 | | .85<br>13.0 | 4000<br>6000 | | 2A5 |
| 2A6 | DUO-DI TRIODE | HTR | 2.5 | .8 | 6G-SS6 | 12DA | 1.7 | 2.0 | 3.5 | AMPLIFIER CLASS A | 250 | —2 | | 0.9 | | 100 | 91000 | 1100 | | | | 2A6 |
| 2A7<br>2A7S | HEPTODE | HTR | 2.5 | .8 | 7C-SS7<br>7C-SS7 | 12DA | .3* | 8.5 | 9.0 | OSC SECT<br>MIXER | 250S<br>250 | .05MEG<br>—3 | 100 | 4.0<br>3.5 | 2.7 | | GRID #2 RES .02 MEG<br>.36MEG 550C | | | | —35 | 2A7<br>2A7S |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

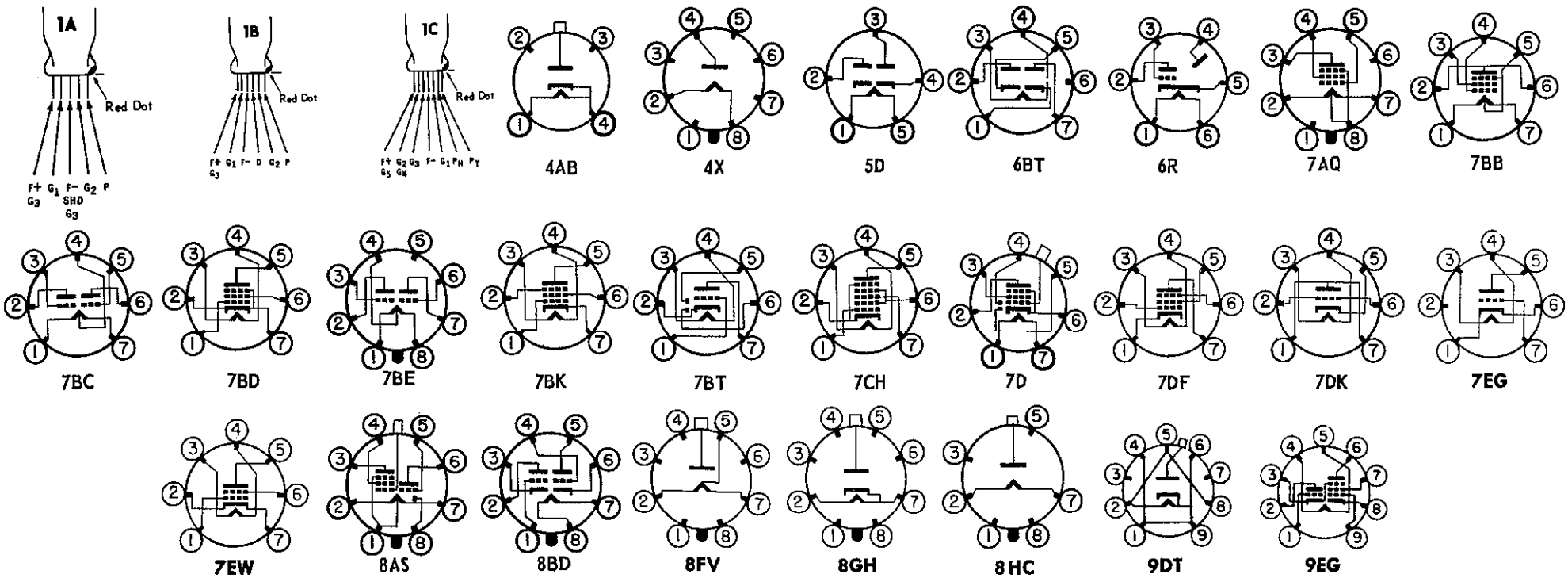


| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | CATHODE HTR OR FIL VOLTS | CATHODE HTR OR FIL AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | CAPACITIES IN mmfds | CAPACITIES OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2AF4<br>2AF4A | TRIODE | HTR | 2.35 | 0.6 | 7DK-MB7 | 5AC<br>5AA | 1.9 | 2.2 | .45 | UHF OSCILLATOR | 80 | Rk 150 | | 16 | | 15 | 2270 | 6600 | | | | 2AF4<br>2AF4A |
| 2B3 | DIODE | FIL | 1.75 | 0.25 | 8HC-OGT6 | 9EC | | | | HIGH VOLTAGE RECTIFIER | MAX PEAK INVERSE = 27000 volts | | | | | | MAX Io = 50 ma | | | | | 2B3 |
| 2B7<br>2B7S | DUO-DI PENTODE | HTR | 2.5 | .8 | 7D-SS7<br>7D-SS7 | 12DH<br>12DH | .007* | 3.5 | 9.5 | AMPLIFIER CLASS A | 250<br>100 | —3<br>—3 | 125<br>100 | 9.0<br>5.8 | 2.3<br>1.7 | | .65MEG<br>.30MEG | 1125<br>950 | | | —21<br>—17 | 2B7<br>2B7S |
| 2BN4 | TRIODE | HTR | 2.3 | 0.6 | 7EG-MB7 | 5AC | 1.2 | 3.2 | 1.4 | RF AMPLIFIER | 150 | Rk 220 | | 9 | | 43 | 6300 | 6800 | | | | 2BN4 |
| 2C50 | DOUBLE TRIODE | HTR | 12.6 | 0.3 | 8BD-OGTR | 9BC | | | | DISCRIMINATOR | 200 | —11 | | 18 | | 10 | 3450 | 2900 | | | | 2C50 |
| 2CY5 | TETRODE | HTR | 2.4 | 0.6 | 7EW-MT | 5AA | 0.03 | 4.5 | 3.0 | CL A AMP | 180 | —1.0 | 180 | 10 | 1.5 | | 0.1MEG | 8000 | | | —6 | 2CY5 |
| 2E5 | ELEC RAY | HTR | 2.5 | .8 | 6R-SS6 | 12BA | | | | TUNING IND | 250 THRU 1 MEG, TARGET 250v, GRID 0v FOR 90° | | | | | | | | —8v FOR 0° | | | 2E5 |
| 2E31<br>2E32 | PENTODE | FIL | 1.25 | 0.05 | 1A | 3BA | 0.018 | 4.2 | 4.0 | VOLTAGE AMP | 22.5 | 0 | 22.5 | 0.4 | 0.3 | | 0.35MEG | 500 | | | —2.0 | 2E31<br>2E32 |
| 2E35<br>2E36 | PENTODE | FIL | 1.25 | 0.03 | 1A | 3BA | 0.2 | 2.7 | 5.7 | POWER AMP | 22.5 | 0 | 22.5 | 0.27 | 0.07 | | 0.22MEG | 385 | .0012 | 0.15 MEG | | 2E35<br>2E36 |
| 2E41<br>2E42 | DIODE PENTODE | FIL | 1.25 | 0.03 | 1B | 3BA | 0.10 | 2.7 | 4.3 | DET-AMP | 22.5 | 0 | 22.5 | 0.35 | 0.12 | | 0.25MEG | 375 | | | | 2E41<br>2E42 |
| 2G21<br>2G22 | TRIODE HEPTODE | FIL | 1.25 | 0.05 | 1C | 3BA | 0.065 | 3.5 | 3.6 | TRIODE OSC<br>HEPT MIXER | 22.5<br>22.5 | 0 | 22.5 | 1.0<br>0.2 | 0.3 | | 0.5 MEG | 60C | | | —3.5 | 2G21<br>2G22 |
| 2S/4S | DUO DIODE | HTR | 2.5 | 1.35 | 5D-SS5 | | | | | DETECTOR | | | | 40 APPROX PER PLATE AT 50v DC | | | | | | | | 2S/4S |
| 2T4 | TRIODE | HTR | 2.35 | 0.6 | 7DK-MB7 | 5AA | 1.7 | 2.6 | .40 | UHF OSCILLATOR | 80 | Rk 150 | | 18 | | 13 | | 7000 | | | | 2T4 |
| 2V2 | DIODE | FIL | 2.5 | 0.2 | 8FV-OM8 | 11BC | | | | HIGH VOLTAGE RECTIFIER | MAX PEAK INVERSE = 33000 volts | | | | | | Io = 2ma DC MAX | | | | | 2V2 |
| 2W3GT | DIODE | FIL | 2.5 | 1.5 | 4X-OW5 | 9BC | | | | H W RECT | 350 RMS MAX | | | 55 DC MAX | | | | | | | | 2W3GT |
| 2X2A | DIODE | HTR | 2.5 | 1.75 | 4AB-SS4 | 12DA | | | | H W RECT | 4500 RMS MAX | | | 7.5 DC MAX | | | | | | | | 2X2A |
| 2Y2 | DIODE | HTR | 2.5 | 1.75 | 4AB-SS4 | 12DA | | | | HALF-WAVE RECT | MAX PEAK INVERSE = 12000 volts MAX Io = 5madc | | | | | | | | | | | 2Y2 |
| 3A2 | DIODE | HTR | 3.15 | 0.22 | 9DT-MB9 | 5CB | | | 1.0 | HALF WAVE RECTIFIER | MAX PEAK INVERSE = 18000 volts MAX AC | | | | | | | Io = 1.5ma | | | | 3A2 |
| 3A4 | BM PWR | FIL | 1.4 | 0.2 | 7BB-MB7 | 5AC | 0.2 | 4.8 | 4.2 | PR AMP CL A | 150<br>135 | —8.4<br>—7.5 | 90<br>90 | 13.3<br>14.8 | 2.2<br>2.6 | | 0.10MEG<br>0.09MEG | 1900<br>1900 | 700<br>600 | 8000<br>8000 | | 3A4 |
| 3A5 | TWIN TRIODE | FIL | 1.4 or 2.8 | .22<br>.11 | 7BC-MB7 | 5AC | 3.2L<br>3.2R | 0.9L<br>0.9R | 1.0L<br>1.0R | H F AMP | 90 | —2.5 | | 3.7 | | 15 | 8300 | 1800 | | | | 3A5 |
| 3A8GT | DI-TRI PENTODE | FIL | 1.4 or 2.8 | .1<br>.05 | 8AS-OGT8 | 9EB | 2.0<br>.012 | 2.6*<br>3.0 | 4.2<br>10* | TRI CL A<br>PENT CL A | 90<br>90 | —FIL<br>—FIL | <br>90 | 0.20<br>1.5 | <br>0.5 | | .20MEG<br>.8 MEG | 325<br>750 | | | | 3A8GT |
| 3AF4A | TRIODE | HTR | 3.2 | 0.45 | 7DK-MB7 | 5AA | 1.9 | 2.2 | .45 | UHF OSCILLATOR | 80 | Rk 150 | | 16 | | 15 | 2270 | 6600 | | | | 3AF4A |
| 3AL5 | DOUBLE DIODE | HTR | 3.15 | 0.6 | 6BT-MB7 | 5AA | | | | DETECTOR | MAX PEAK INVERSE = 330 volts | | | | | | | | | | | 3AL5 |
| 3AU6 | PENTODE | HTR | 3.15 | 0.6 | 7BK-MB7 | 5AC | .0035 | 5.5 | 5.0 | RF AMPLIFIER | 250 | —1 | | 7.6 | | | 1.5MEG | 4450 | | | | 3AU6 |
| 3AV6 | DBLE DI TRIODE | HTR | 3.15 | 0.6 | 7BT-MB7 | 5AC | 2.0 | 2.2 | 0.8 | DETECTOR AVC RECTIFIER AF AMPLIFIER | 250 | —2 | | 1.2 | | 100 | 62500 | 1600 | | | | 3AV6 |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | VOLTS | AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | IN mmfds | OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3B2 | DIODE | HTR | 3.15 | 0.22 | 8GH-OJ8 | 12HE | | | 1.8 | HW RECTIFIER | MAX PEAK INVERSE = 35000 volts | | | | | | MAX AVG. Io = 1.1ma | | | | | 3B2 |
| 3B5GT | BM PWR | FIL | 1.4 or 2.8 | 0.10 0.05 | 7AQ-OGT7 | 9DB | PARALLEL FIL SERIES FIL | | | PR AMP CL A | 45 67.5 | —4.5 —7 | 45 67.5 | 4.4 6.7 | 0.3 0.5 | | 0.1 MEG 0.1 MEG | 1400 1500 | .070 .180 | 8000 5000 | | 3B5GT |
| 3B7/1291 | TWIN TRIODE | FIL | 1.4 | .22 | 7BE-L8 | 9AC | 2.6L 2.6R | 1.4L 1.4R | 1.8L 2.6R | AMP OSC CLASS B | 135 90 | 0 | | 19 10.4 | | 20 20 | | 1900 1850 | 1.5 1.0 | 16000 8000 | | 3B7/1291 |
| 3BA6 | PENTODE | HTR | 3.15 | 0.6 | 7BK-MB7 | 5AC | .0035 | 5.5 | 5.0 | RF-IF AMPLIFIER | 250 | Rk 68 | 100 | 11 | | | 1.5MEG | 4400 | | | | 3BA6 |
| 3BC5 | PENTODE | HTR | 3.15 | 0.6 | 7BD-MB7 | 5AC | .030 | 6.5 | 1.8 | RF AMPLIFIER | 125 | Rk 125 | | | | | 0.5MEG | 6100 | | | | 3BC5 |
| 3BF6 | HEPTODE | HTR | 3.15 | 0.6 | 7CH-MB7 | 5AC | .05 | | | MIXER-OSCILLATOR | 250 | | 100 | 3 | | | 1MEG | 475 | | | | 3BF6 |
| 3BN4 | TRIODE | HTR | 2.8 | 0.45 | 7EG-MB7 | 5AC | 1.2 | 3.2 | 1.4 | RF AMPLIFIER | 150 | Rk 220 | | 9 | | 43 | 6300 | 6800 | | | | 3BN4 |
| 3BN6 | GATED BM | HTR | 3.15 | 0.6 | 7DF-MB7 | 5AD | | | | DISCRIMINATOR | 80 | INPUT SIG CENTER FREQ. = 10.7 MC FREQ. DEV. = ± 75 kc | | | | | | | | | | 3BN6 |
| 3BU8 | TWIN PENTODE | HTR | 3.15 | 0.6 | 9EG-MR9 | 5BC | 1.9 | | | SYNC-AGC | 100 | —10 | 67.5 | 2.2 | 3.3 | | | 180 | | | —4.5 | 3BU8 |
| 3BY6 | PENTAGRID | HTR | 3.15 | 0.6 | 7CH-MB7 | 5AC | 0.08 | | | GATED AMPLIFIER | 250 | | 100 | 6.5 | | | | 1900 | | | | 3BY6 |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

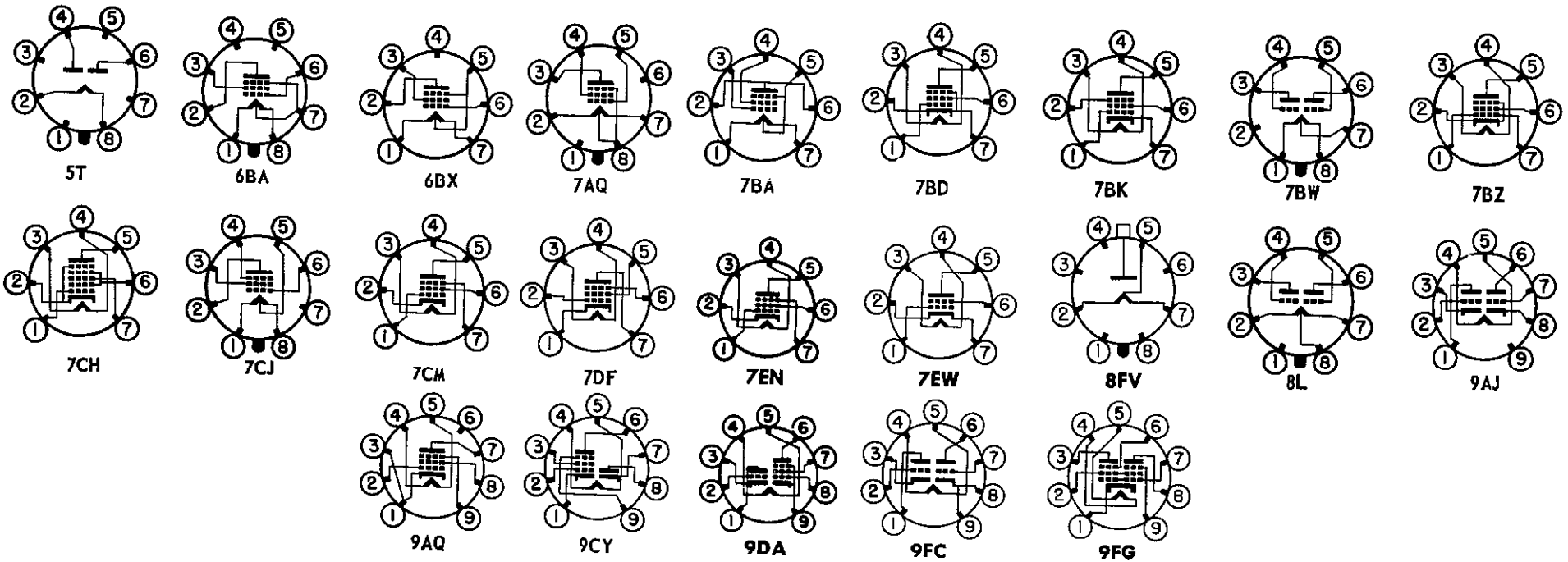


| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | CATHODE HTR OR FIL VOLTS | CATHODE HTR OR FIL AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | CAPACITIES IN mmfds | CAPACITIES OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3BZ6 | PENTODE | HTR | 3.15 | 0.6 | 7CM-MB7 | 5AC | 0.025 | 7.0 | 2.0 | AGC IF AMPLIFIER | 125 | | 125 | 14 | | | 0.26MEG | 8000 | | | | 3BZ6 |
| 3C2 | DIODE | FIL | 3.15 | 0.21 | 8FV-OM8 | 12JD | | | 1.4 | HIGH VOLTAGE MAX PEAK INVERSE = 33 kv RECTIFIER | | | | | | MAX Io = 80 ma | | | | | | 3C2 |
| 3C5GT | BM PWR | FIL | 1.4 or 2.8 | 0.1 0.05 | 7AQ-OGT7 | 9DB | PARALLEL FIL SERIES FIL | | | PR AMP CL A | 90 90 | —9 —9 | 90 90 | 6 6 | 1.4 1.4 | | | 1550 1450 | .240 .260 | 10000 10000 | | 3C5GT |
| 3C4 | PENTODE | FIL | 1.4 | .05 | 6BX-MB7 | 5AC | .3 | 4.9 | 4.4 | POWER AMP | 85 | —5.2 | 85 | 5.0 | 1.1 | | .125MEG | 1350 | .2 | 13000 | | 3C4 |
| 3C6 | TWIN TRIODE | FIL | 1.4 2.8 | 0.1 0.05 | 7BW-L8 | 9AC | PARALLEL FIL SERIES FIL | | | VOLTAGE AMP | 90 90 | 0 0 | | 4.5 4.5 | | 14.5 14.5 | 11200 11200 | 1300 1300 | | | | 3C6 |
| 3CB6 | PENTODE | HTR | 3.15 | 0.6 | 7CM-MB7 | 5AC | 0.025 | 6.5 | 2.0 | IF AMPLIFIER | 125 | | 125 | 13 | | | 0.28MEG | 8000 | | | | 3CB6 |
| 3CF5 | PENTODE | HTR | 3.15 | 0.6 | 7BD-MB7 | 5AC | 0.03 | 6.5 | 1.9 | RF AMPLIFIER | 125 | | 125 | 11 | 2.3 | | 0.3MEG | 7600 | | | | 3CF5 |
| 3CF6 | PENTODE | HTR | 3.15 | 0.6 | 7CM-MB7 | 5AC | 0.02 | 6.5 | 2.0 | RF AMPLIFIER | 200 | Rk 180 | 150 | 9.5 | 2.8 | | 0.6MEG | 6200 | | | —6.5 | 3CF6 |
| 3CS6 | HEPTODE | HTR | 3.15 | 0.6 | 7CH-MB7 | 5AC | 0.05 | 5.5 | 7.5 | CL A AMPLIFIER | 100 | —1.0 | 30 | .75 | 1.1 | | 1MEG | 1500 | | | —2.5 | 3CS6 |
| 3CY5 | TETRODE | HTR | 2.9 | 0.45 | 7EW-M7 | 5AA | 0.03 | 4.5 | 3.0 | CL A AMPLIFIER | 180 | —1.0 | 180 | 10 | 1.5 | | 0.1MEG | 8000 | | | —6 | 3CY5 |
| 3D6/1299 | BM PWR | FIL | 1.4 or 2.8 | .220 .110 | 6BA-L8 | 9AC | PARALLEL FIL SERIES FIL | | | PR AMP CL A | 150 135 | —4.5 —4.5 | 90 90 | 9.8 9.8 | 1.0 1.2 | | | 2400 2400 | .600 .500 | 14000 12000 | | 3D6/1299 |
| 3DK6 | PENTODE | HTR | 3.15 | 0.6 | 7CM-M7 | 5AC | 0.02 | 6.3 | 1.9 | IF AMPLIFIER | 125 | Rk 56 | 125 | 12 | 3.8 | | | 9800 | | | —6.5 | 3DK6 |
| 3DT6 | PENTODE | HTR | 3.15 | 0.6 | 7EN-MB7 | 5AC | 0.02 | 6.1 | 5.8 | DETECTOR | 150 | Rk 560 | 100 | 1.1 | 2.1 | | 0.15MEG | 800 | | | —4.5 | 3DT6 |
| 3E5 | BM PENT | FIL | 1.4 2.8 | .05 .025 | 6BX-MB7 | 5AC | PARALLEL FIL SERIES FIL | | | POWER AMP | 90 90 | —8 —8 | 90 90 | 6.0 5.5 | 1.5 1.5 | | .14MEG .12MEG | 1200 1100 | .2 .175 | 8000 8000 | | 3E5 |
| 3E6 | PENTODE | FIL | 1.4 2.8 | 0.1 0.05 | 7CJ-L8 | 9AC | .007 | 5.5 | 8.0 | VOLTAGE AMP | 90 90 | 0 0 | 90 90 | 4.2 2.9 | 1.7 1.2 | | 0.25MEG 0.325MEG | 2000 1700 | PARALLEL FIL SERIES FIL | | —5.5 —4.0 | 3E6 |
| 3LE4 | BM PWR | FIL | 1.4 or 2.8 | 0.1 0.05 | 6BA-L8 | 9AC | PARALLEL FIL SERIES FIL | | | PR AMP CL A | 90 90 | —9 —9 | 90 90 | 10.0 8.8 | 2 1.8 | | 0.10MEG 0.11MEG | 1700 1600 | .325 .300 | 6000 6000 | | 3LE4 |
| 3LF4 | BM PWR | FIL | 1.4 or 2.8 | 0.1 0.05 | 6BA-L8 | 9AC | PARALLEL FIL SERIES FIL | | | PR AMP CL A | 90 90 | —4.5 —4.5 | 90 90 | 9.5 8.0 | 1.3 1.0 | | 0.75MEG 0.80MEG | 2200 2000 | .270 .230 | 8000 8000 | | 3LF4 |
| 3Q4 | BM PWR | FIL | 1.4 or 2.8 | 0.1 0.05 | 7BA-MB7 | 5AC | PARALLEL FIL SERIES FIL | | | PR AMP CL A | 90 90 | —4.5 —4.5 | 90 90 | 9.5 7.7 | 2.1 1.7 | | 0.10MEG 0.12MEG | 2150 2000 | .250 .240 | 10000 10000 | | 3Q4 |
| 3Q5GT | BM PWR | FIL | 1.4 or 2.8 | .1 .05 | 7AQ-OGT7 | 9DB | PARALLEL FIL SERIES FIL | | | PR AMP CL A | 90 90 | —4.5 —4.5 | 90 90 | 9.5 8.0 | 1.3 1.0 | | .075MEG .08 MEG | 2200 2000 | .270 .230 | 8000 8000 | | 3Q5GT |
| 3S4 | PENTODE | FIL | 1.4 or 2.8 | .1 .05 | 7BA-MB7 | 5AC | PARALLEL FIL SERIES FIL | | | POWER AMP CLASS A | 90 90 | —7 —7 | 67.5 67.5 | 7.4 6.1 | 1.4 1.1 | | .1 MEG .1 MEG | 1550 1425 | .270 .235 | 8000 8000 | | 3S4 |
| 3V4 | PENTODE | FIL | 1.4 2.8 | 0.1 0.05 | 6BX-MB7 | 5AC | 0.20 | 5.5 | 3.8 | POWER AMP | 90 90 | —4.5 —4.5 | 90 90 | 9.5 7.7 | 2.1 1.7 | | 0.1 MEG 0.12MEG | 2150 2000 | 0.27 0.24 | 10000 10000 | Par Fil Ser Fil | 3V4 |
| 4A6G | TWIN TRIODE | FIL | 2.0 or 4.0 | .12 .06 | 8L-OS8 | 12BA | | | | CL A 1 SECT CL B 2 SECT | 90 90 | —1.5 —1.5 | | 1.1 1.1 MAX SIG PLATE CUR—10.8ma | | 20 | 26600 | 750 | 1.0 | 8000 | | 4A6G |
| 4AU6 | PENTODE | HTR | 4.2 | 0.45 | 7BK-MB7 | 5AC | 0.0035 | 5.5 | 5.0 | VOLTAGE AMP | 250 | —1 | 150 | 10.8 | 4.3 | | 1MEG | 5200 | | | —6.2 | 4AU6 |
| 4BC5 | PENTODE | HTR | 4.2 | 0.45 | 7BD-MB7 | 5AC | 0.02 | 6.6 | 3.1 | CL A AMP | 100 250 | Rk 250 | 100 150 | 4.7 7.5 | 1.4 2.1 | | .6 MEG .8 MEG | 4900 5700 | | | —5 —8 | 4BC5 |
| 4BC8 | DOUBLE TRIODE | HTR | 4.2 | 0.6 | 9AJ-MB9 | 5BB | 1.4 | 2.5 | 1.3 | CASCADE AMPLIFIER | 150 | Rk 220 | | 10 | | 35 | | 6200 | | | —13 | 4BC8 |
| 4BN6 | GATEDBM | HTR | 4.2 | 0.45 | 7DF-MB7 | 5AD | | | | DISCRIMINATOR | 80 | INPUT SIG CENTER FREQ = 10.7 Mc FREQ. DEV = ± 7.5 kc | | | | | | | | | | 4BN6 |
| 4BQ7A | DBLE TRI | HTR | 4.2 | 0.6 | 9AJ-MB9 | 5BB | 1.5 | 2.85 | 1.35 | RF AMPLIFIER | 150 | Rk 220 | | 9 | | 39 | 6100 | 6400 | | | —10 | 4BQ7A |
| 4BS8 | DBLE TRI | HTR | 4.2 | 0.6 | 9AJ-MB9 | 5BB | 1.15 | 2.6 | 1.2 | CASCADE AMPLIFIER | 150 | Rk 220 | | 10 | | 36 | 5000 | 7200 | | | —7 | 4BS8 |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | VOLTS | AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | IN mmfds | OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4BU8 | TWIN PENTODE | HTR | 4.2 | 0.45 | 9FG-MB9 | 5BC | 1.9 | | | SYNC-AGC | 100 | —10 | 67.5 | 2.2 | 3.3 | | | 180 | | | —4.5 | 4BU8 |
| 4BX8 | DBLE TRI | HTR | 4.5 | 0.6 | 9AJ-MB9 | 5BB | 1.4 | 2.4 | 1.25 | CASCADE AMPLIFIER | 65 | —1.0 | | 9 | | 25 | | 6700 | | | —7 | 4BX8 |
| 4BZ7 | DBLE TRI | HTR | 4.2 | 0.6 | 9AQ-MB9 | 5BC | 0.007 | 7.2 | 3.7 | RF AMPLIFIER | 150 | Rk 220 | | 10 | | 38 | 5600 | 6800 | | | —11 | 4BZ7 |
| 4BZ8 | DBLE TRI | HTR | 4.2 | 0.6 | 9AJ-MB9 | 5BB | 1.15 | | | CASCADE AMPLIFIER | 125 | Rk 100 | | 10 | | 45 | 5600 | 8000 | | | —13 | 4BZ8 |
| 4CB6 | PENTODE | HTR | 4.2 | 0.45 | 7CM-MB7 | 5AC | 0.025 | 6.5 | 2.0 | IF AMPLIFIER | 125 | 125 | | 13 | | | 0.28MEG | 8000 | | | | 4CB6 |
| 4CE5 | PENTODE | HTR | 4.2 | 0.45 | 7BD-MB7 | 5AC | 0.03 | 6.5 | 1.9 | RF AMPLIFIER | 125 | | 125 | 11 | 2.3 | | 0.3 MEG | 7600 | | | | 4CE5 |
| 4CX7 | DBLE TRI | HTR | 4.2 | 0.6 | 9FC-MB9 | 5BB | 1.2 | 2.4 | 1.3 | CASCADE AMPLIFIER | 150 | Rk 220 | | 9 | | 39 | | 6400 | | | —10 | 4CX7 |
| 4CY5 | TETRODE | HTR | 4.5 | 0.3 | 7EW-M7 | 5AA | 0.03 | 4.5 | 3.0 | CL A AMPLIFIER | 180 | —1.0 | 180 | 10 | 1.5 | | 0.1 MEG | 8000 | | | —6 | 4CY5 |
| 4DK6 | PENTODE | HTR | 4.2 | 0.45 | 7CM-M7 | 5AC | 0.02 | 6.3 | 1.9 | IF AMPLIFIER | 125 | Rk 56 | 125 | 12 | 3.8 | | | 9800 | | | —6.5 | 4DK6 |
| 4DT6 | PENTODE | HTR | 4.2 | 0.45 | 7EN-MB7 | 5AC | 0.02 | 6.1 | 5.8 | DETECTOR | 150 | Rk 560 | 100 | 1.1 | 2.1 | | 0.15MEG | 800 | | | —4.5 | 4DT6 |
| 5AM8 | DIODE PENTODE | HTR | 4.7 | 0.6 | 9CY-MB9 | 5BB | 0.015 | 6 | 2.6 | DET-AMP | 200 | Rk 120 | 150 | 9.5 | 3 | | 0.3 MEG | 5800 | | | —9 | 5AM8 |
| 5AN8 | TRIODE PENTODE | HTR | 4.7 | 0.6 | 9DA-MB9 | 5BB | 1.5<br>0.04 | 2.0<br>7.0 | 0.27<br>2.3 | AMPLIFIER | 300 | Rk 180 | | 13 | | 19 | 5750 | 3300 | | | | 5AN8 |
| 5AQ5 | BEAM PENTODE | HTR | 4.7 | 0.6 | 7BZ-MB7 | 5AD | 0.17 | 8.0 | 11.0 | POWER AMP | 250 | —12.5 | 250 | 45 | 4.5 | | 52000 | 4100 | 4.5 | 5000 | | 5AQ5 |
| 5AS4 | DBLE DI | FIL | 5.0 | 3.0 | 5T-OM5 | 16AA | | | | FW RECTIFIER | MAX PEAK INVERSE = 1550 volts | | | | | MAX Io = 1 amp | | | | | | 5AS4 |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

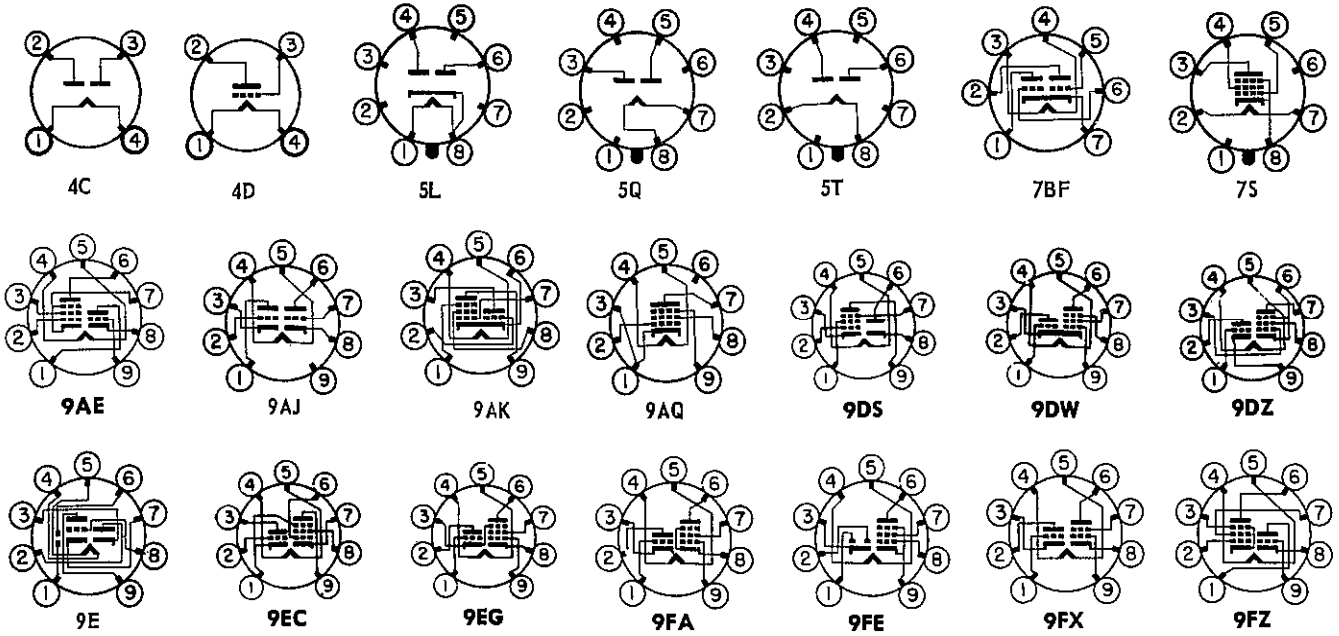


| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | VOLTS | AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | IN mmfds | OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5AS8 | DIODE PENTODE | HTR | 4.7 | 0.6 | 9DS-MB9 | 5BB | 0.02 | 2.4 | 7.0 | DET-AMP | 200 | Rk 180 | 150 | 9.5 | 3 | | 0.3 MEG | 6200 | | | —8 | 5AS8 |
| 5AT8 | TRIODE PENTODE | HTR | 4.7 | 0.6 | 9DW-MB9 | 5BB | 1.5 | 2.0 | 0.5 | OSCILLATOR MIXER | 100<br>250 | 150 | Rk 200 | 8.5<br>7.7 | 1.6 | 40 | 0.75MEG | 5800<br>4600 | | | —10 | 5AT8 |
| 5AU4 | DBLE DI | FIL | 5.0 | 4.5 | 5T-08 | 12EE | | | | FW RECTIFIER | MAX PEAK INVERSE = 1400 volts MAX Io = 1075 ma | | | | | | | | | | | 5AU4 |
| 5AV8 | TRIODE PENTODE | HTR | 4.7 | 0.6 | 9DZ-MB9 | 5BB | 1.5<br>0.04 | 2.0<br>7.0 | 0.34<br>3.0 | AMPLIFIER | 200 | —6 | 150 | 13<br>9.5 | 2.8 | 19 | 0.3MEG | 3300<br>6200 | | | —19<br>—8 | 5AV8 |
| 5AW4 | DBLE DI | FIL | 5.0 | 4.0 | 5T-OM5 | 16AA | | | | FW RECTIFIER | MAX. PEAK INVERSE = 1550 V; MAX Io = 250ma | | | | | | | | | | | 5AW4 |
| 5AX4GT | DBLE DI | FIL | 5.0 | 2.5 | 5T-OGT5 | 9DB | | | | FW RECTIFIER | MAX. PEAK INVERSE = 1400 V; MAX Io = 175ma | | | | | | | | | | | 5AX4GT |
| 5AZ4 | DOUBLE DIODE | FIL | 5.0 | 2.0 | 5T-L8 | 9AD | | | | FULL-WAVE RECT | MAX. PEAK INVERSE = 1400 volts MAX Io = 125 madc | | | | | | | | | | | 5AZ4 |
| 5B8 | TRIODE PENTODE | HTR | 4.7 | 0.6 | 9EC-MB9 | 5BB | 1.7<br>0.05 | 1.9<br>6.0 | 1.4<br>2.6 | OSCILLATOR MIXER | 200<br>200 | —6 | 150 | 13<br>9.5 | 2.8 | 19 | 0.3MEG | 3300<br>6200 | | | —19<br>—8 | 5B8 |
| 5BE8 | TRIODE PENTODE | HTR | 4.7 | 0.6 | 9EG-MB9 | 5BB | 1.8<br>0.04 | 2.8<br>4.4 | 1.5<br>2.6 | OSCILLATOR MIXER | 150<br>250 | Rk 68 | 110 | 18<br>10 | 3.5 | 40 | 0.4MEG | 8500<br>5200 | | | —12<br>—10 | 5BE8 |
| 5BK7A | DBLE TRI | HTR | 4.7 | 0.6 | 9AJ-MB9 | 5BB | 1.9 | 3.0 | 1.1 | RF AMPLIFIER | 150 | Rk 56 | | 18 | | 43 | 4600 | 9300 | | | —11 | 5BK7A |
| 5BQ7A | DBLE TRI | HTR | 5.6 | 0.45 | 9AJ-MB9 | 5BB | 1.5 | 2.85 | 1.35 | RF AMPLIFIER | 150 | Rk 220 | | 9 | | 39 | 6100 | 6400 | | | —10 | 5BQ7A |
| 5BR8 | TRIODE PENTODE | HTR | 4.7 | 0.6 | 9FA-MB9 | 5BB | 1.8<br>0.015 | 2.5<br>5.0 | 0.4<br>2.6 | OSCILLATOR MIXER | 150<br>250 | Rk 68 | 110 | 18<br>10 | 3.5 | 40 | 0.4MEG | 8500<br>5200 | | | —12<br>—10 | 5BR8 |
| 5BT8 | DBLE DI PENTODE | HTR | 4.7 | 0.6 | 9FE-MB9 | 5BB | 0.04 | 1.3<br>7.0 | 3.0<br>2.3 | DET-AMP | 200 | Rk180 | 150 | 9.5 | 2.8 | | 0.3MEG | 6200 | | | —8 | 5BT8 |
| 5BZ7 | DBLE TRI | HTR | 5.6 | 0.45 | 9AQ-MB9 | 5BC | 0.007 | 7.2 | 3.7 | RF AMPLIFIER | 150 | Rk 220 | | 10 | | 38 | 5600 | 6800 | | | —11 | 5BZ7 |
| 5CG8 | TRIODE PENTODE | HTR | 4.7 | 0.6 | 9FA-MB9 | 5BB | 1.5 | 2.6 | 0.05 | OSCILLATOR MIXER | 100<br>250 | Rk 200 | 150 | 8.5<br>7.7 | 1.6 | 40 | 0.75MEG | 5800<br>4600 | | | —10 | 5CG8 |
| 5CL8 | TRIODE TETRODE | HTR | 4.7 | 0.6 | 9FX-MB9 | 5BB | 1.8<br>0.028 | 2.7<br>5.0 | 0.4<br>2.0 | OSCILLATOR MIXER | 125 | —1.0 | 125 | 15<br>12 | 4.0 | 40 | 0.1 MEG | 8000<br>5800 | | | —9<br>—10 | 5CL8 |
| 53CM8 | TRIODE PENTODE | HTR | 4.7 | 0.6 | 9FZ-MB9 | 5BB | 1.9<br>0.02 | 1.6<br>6.0 | 0.22<br>2.6 | IF AMPLIFIER | 250<br>200 | —2 | 150 | 1.8<br>9.5 | 2.8 | 100 | 0.6 MEG | 2000<br>6200 | | | —8 | 5CM8 |
| 5J6 | TWIN TRIODE | HTR | 4.7 | 0.6 | 7BF-MB7 | 5AC | 1.6 | 2.2 | 0.4 | OSCILLATOR | 100 | —1 | | 8.5 | | 38 | 6000 | 5300 | | | | 5J6 |
| 5R4G | DBLE DI | FIL | 5.0 | 2.0 | 5T-OM5 | 16AA | | | | FW RECTIFIER | MAX. PEAK INVERSE = 2800 V; MAX Io = 250ma | | | | | | | | | | | 5R4G |
| 5R4GY<br>5R4GYA | TWIN DIODE | FIL | 5.0 | 2.0 | 5T-OM5 | 16AA<br>12GE | | | | FULL WAVE RECTIFIER | 1000 RMS MAX COND IN 150 DC MAX TUBE DROP 50v AT 175ma DC<br>950 RMS MAX CHOKE IN 175 DC MAX | | | | | | | | | | | 5R4GY<br>5R4GYA |
| 5T4 | TWIN DIODE | FIL | 5.0 | 2.0 | 5T-OW5 | 10A | | | | FULL WAVE RECTIFIER | 450 RMS MAX COND IN 225 DC MAX TUBE DROP 45v AT 225ma DC<br>550 RMS MAX CHOKE IN 225 DC MAX | | | | | | | | | | | 5T4 |
| 5T8 | TRIP-DI-TRI | HTR | 4.7 | 0.6 | 9E-MB9 | 5BB | 2.4 | 1.5 | 1.1 | DET-AMP | 250 | —3 | | 1.0 | | 70 | | 1200 | | | | 5T8 |
| 5U4G<br>5U4GA<br>5U4BG | TWIN DIODE | FIL | 5.0 | 3.0 | 5T-OM8 | 16AA<br>11ABD<br>12GD | | | | FULL WAVE RECTIFIER | 450 RMS MAX COND IN 225 DC MAX TUBE DROP 58v AT 225ma DC<br>550 RMS MAX CHOKE IN 225 DC MAX | | | | | | | | | | | 5U4G<br>5U4GA<br>5U4GB |
| 5U8 | TRIODE PENTODE | HTR | 4.7 | 0.6 | 9AE-MB9 | 5BB | 1.8<br>0.01 | 2.5<br>5.0 | 1.0<br>2.6 | TRIODE SECT<br>PENTODE SECT | 150<br>250 | Rk 56<br>Rk 68 | | 18<br>10 | 3.5 | 40 | 0.4MEG | 8500<br>5280 | | | —12<br>—10 | 5U8 |
| 5V3 | DBLE DIODE | FIL | 5.0 | 3.8 | 5T-OM8 | 12GD | | | | FW RECTIFIER | MAX PEAK INVERSE = 1400 volts; MAX Io = 350 ma | | | | | | | | | | | 5V3 |
| 5V4G<br>5V4GA | TWIN DIODE | HTR | 5.0 | 2.0 | 5L-OM5 | 14BA<br>12GB | | | | FULL WAVE RECTIFIER | 375 RMS MAX COND IN 175 DC MAX TUBE DROP 23v AT 175ma DC<br>550 RMS MAX CHOKE IN 225 DC MAX | | | | | | | | | | | 5V4G<br>5V4GA |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | VOLTS | AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | IN mmfds | OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5V6GT | BEAM POWER AMP | HTR | 4.7 | 0.6 | 7S-OW7 | 9DB | | | | CI A AMP | 250 | —12.5 | 250 | 45 | 4.5 | | 52000 | 4100 | 4.5 | 5000 | | 5V6GT |
| 5W4<br>5W4GT | TWIN DIODE | FIL | 5.0 | 1.5 | 5T-OW5<br>5T-OGT5 | 8FA<br>9DB | | | | FULL WAVE RECTIFIER | 350 RMS MAX COND IN 100 DC MAX TUBE DROP 45v AT 100ma DC<br>500 RMS MAX CHOKE IN 100 DC MAX | | | | | | | | | | | 5W4<br>5W4GT |
| 5X3 | TWIN DI | FIL | 5.0 | 2.0 | 4C-SM4 | 14BA | | | | F W RECT | 1275 RMS MAX COND IN 30 DC MAX | | | | | | | | | | | 5X3 |
| 5X4G | TWIN DI | FIL | 5.0 | 3.0 | 5Q-OM8 | 16AA | | | | F W RECT | 450 RMS MAX COND IN 225 DC MAX TUBE DROP 58v AT 225ma DC<br>550 RMS MAX CHOKE IN 225 DC MAX | | | | | | | | | | | 5X4G |
| 5X4GA | TWIN DI | FIL | 5.0 | 3.0 | 5Q-OM8 | 12GD | | | | F W RECT | 450 RMS MAX COND IN 250 DC MAX TUBE DROP 44v AT 225ma DC<br>550 RMS MAX CHOKE IN 250 DC MAX | | | | | | | | | | | 5X4GA |
| 5X8 | TRIODE<br>PENTODE | HTR | 4.7 | 0.6 | 9AK-MB9 | 5BB | 1.4<br>0.06 | 2.6<br>4.5 | 1.0<br>1.2 | TRIODE SECT<br>PENTODE SECT | 100<br>250 | Rk 100<br>Rk 200 | 150 | 8.5<br>7.7 | 1.6 | 40 | 0.65MEG | 5800<br>4600 | | | —10<br>—8 | 5X8 |
| 5Y3GT<br>5Y3GA<br>5Y4G<br>5Y4GT<br>5Y4GA | TWIN DIODE | FIL | 5.0 | 2.0 | 5T-OM5<br>5T-OM5<br>5Q-OM8<br>5Q-OS6<br>5Q-OM8 | 9DB<br>12GD<br>14AA<br>9DB<br>12GD | | | | FULL WAVE RECTIFIER | 350 RMS MAX COND IN 125 DC MAX TUBE DROP 60v AT 125ma DC<br>500 RMS MAX CHOKE IN 125 DC MAX | | | | | | | | | | | 5Y3GT<br>5Y3GA<br>5Y4G<br>5Y4GT<br>5Y4GA |
| 5Z3 | TWIN DI | FIL | 5.0 | 3.0 | 4C-SM4 | 16AA | | | | F W RECT | 450 RMS MAX COND IN 225 DC MAX TUBE DROP 58v AT 225ma DC<br>550 RMS MAX CHOKE IN 225 DC MAX | | | | | | | | | | | 5Z3 |
| 5Z4<br>5Z4GT | TWIN DIODE | HTR | 5.0 | 2.0 | 5L-OW5<br>5L-OGT5 | 8FA<br>9DB | | | | FULL WAVE RECTIFIER | 350 RMS MAX COND IN 125 DC MAX TUBE DROP 20v AT 125ma DC<br>500 RMS MAX CHOKE IN 125 DC MAX | | | | | | | | | | | 5Z4<br>5Z4GT |
| 6A3 | TRIODE | FIL | 6.3 | 1.0 | 4D-SM4 | 16AA | 16 | 7 | 5 | PR AMP CL A<br>PUSH-PULL<br>CL AB 2 TUBE | 250<br>325<br>325 | —45<br>—68<br>SELF | | 60<br>80<br>80 | 4.2<br>750 OHM BIAS RES | | 800 | 5250 | 3.2<br>15<br>10 | 2500<br>3000<br>5000 | | 6A3 |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

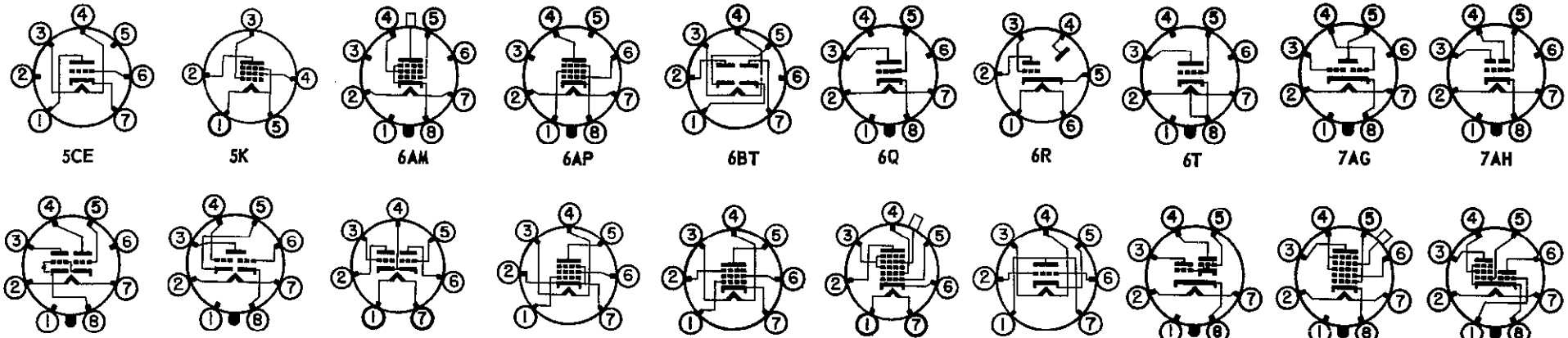


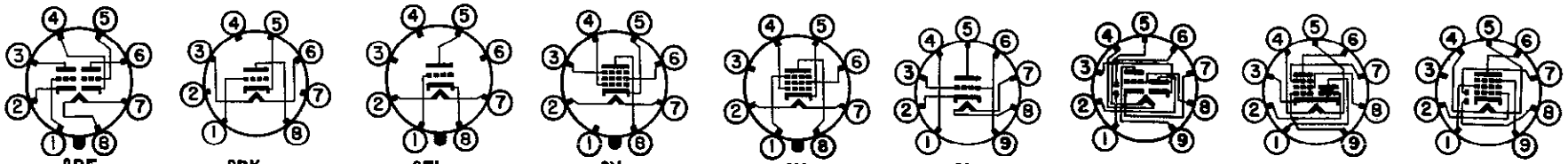
| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | VOLTS | AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | IN mmfds | OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6A4/LA | PENTODE | FIL | 6.3 | .3 | 5K-SM5 | 14BA | | | | PR AMP CL A<br>PUSH-PULL<br>CL AB 2 TUBE | 180<br>250 | —12<br>SELF | 180<br>230 | 22<br>32 | 3.9<br>700 | 100<br>OHM BIAS RES | 45500 | 2200 | 1.4<br>4.2 | 8000<br>16000 | | 6A4/LA |
| 6A5G | TRIODE | HTR | 6.3 | 1.25 | 6T-OM8 | 16AA | 16 | 7 | 5 | PR AMP CL A<br>PUSH-PULL<br>CL AB 2 TUBE | 250<br>325<br>325 | —45<br>—68<br>SELF | | 60<br>80<br>80 | <br><br>750 | 4.2<br><br>OHM BIAS RES | 800 | 5250 | 3.75<br>15<br>10 | 2500<br>3000<br>5000 | | 6A5G |
| 6A6 | TWIN TRIODE | HTR | 6.3 | .8 | 7B-SM7 | 14BA | (SEE TYPE 6N7G ALSO) | | | AMP CL A<br>TRI IN PAR'L | 294<br>250 | —6<br>—5 | | 7<br>6 | | 35<br>35 | 11000<br>11300 | 3200<br>3100 | | | | 6A6 |
| 6A7<br>6A7S<br>6A8<br>6A8G<br>6A8GT | HEPTODE | HTR | 6.3 | .3 | 7C-SS7<br>7C-SS7<br>8A-OW8<br>8A-OS8<br>8A-OW8 | 12DA<br><br>8DA<br>12CA<br>9CA | .3*<br><br>.03<br>.26*<br>.26* | 8.5<br><br>12.5<br>9.5*<br>9.5* | 9.0<br><br>12.5<br>12*<br>12* | OSC SECT<br><br><br><br>MIXER | 250S<br>100<br><br>250<br>100 | .05MEG<br>.05MEG<br><br>—3<br>—1.5 | <br><br><br>100<br>50 | 4.0<br>2.0<br><br>3.5<br>1.1 | <br><br><br>2.7<br>1.3 | | GRID #2 RES. 02 MEG<br><br><br>.36MEG<br>.6 MEG | <br><br><br>550C<br>360C | | | <br><br><br>—35<br>—20 | 6A7<br>6A7S<br>6A8<br>6A8G<br>6A8GT |
| 6AB4 | TRIODE | HTR | 6.3 | .15 | 5CE-MB7 | 5AC | 1.5* | 2.4 | 1.4 | RF AMPLIFIER | 100<br>250 | —1<br>—2 | | 3.7<br>10 | | 54<br>55 | | 4000<br>5500 | | | —6<br>—12 | 6AB4 |
| 6AB5/6N5 | ELEC RAY | HTR | 6.3 | .15 | 6R-SS6 | 9FD | | | | TUNING IND | 135 THRU .25 MEG, TARGET 135v, GRID 0v FOR 90°, –10.0v FOR 0° | | | | | | | | | | | 6AB5/6N5 |
| 6AB6G | DUO TRIODE | HTR | 6.3 | 0.5 | 7AU-OS7 | 12BB | DRIVER TRIODE<br>OUTPUT TRIODE | | | DIR C'P'D AMP | 250<br>250 | 0<br>+ | | 5<br>34 | | 72 | 4000 | 1800 | 3.5 | 8000 | | 6AB6G |
| 6AB7/1853 | PENTODE | HTR | 6.3 | .45 | 8N-OW8 | 8BB | .015 | 8 | 5 | HIGH FREQ<br>AMPLIFIER | 300<br>300 | —3<br>—3 | 200<br>300 THRU .03 MEG (OTHER VALUES SAME AS ABOVE) | 12.5 | 3.2 | | .7 MEG | 5000 | | | —15<br>—22.5 | 6AB7/1853 |
| 6AB8 | TRIODE<br>PENTODE | HTR | 6.3 | .3 | 9AT-MB9 | 5BC | .2<br>1.0 | 4.6<br>2.3 | 4.7<br>1.1 | TRIODE SECT<br>PENTODE SECT | 100<br>200 | —2<br>—7.7 | <br>200 | 4<br>17.5 | <br>3.3 | 18 | <br>.15MEG | 1350<br>3400 | <br>1.4 | <br>11000 | | 6AB8 |
| 6AC5G<br><br>6AC5GT | TRIODE | HTR | 6.3 | .4 | 6Q-OS6<br><br>6Q-OGT6 | 12BA<br><br>9DB | ONE 76 DRIVER<br>TWO 76 DRIVERS | | | DIR C'P'D AMP<br>PUSH-PULL<br>CL B 2 TUBE | 250<br>250<br>250 | SUPPLIED BY<br>DRIVERS<br>0 | | 32<br>64<br>5 NO SIGNAL | | 125 | 36700 | 3400 | 3.7<br>9.5<br>8 | 7000<br>10000<br>10000 | | 6AC5G<br><br>6AC5GT |
| 6AC6GT | DUO TRIODE | HTR | 6.3 | 1.1 | 7W-OGT7 | 9DB | DRIVER TRIODE<br>OUTPUT TRIODE | | | DIR C'P'D AMP | 180<br>180 | 0<br>+ | | 7<br>45 | | 54 | 18000 | 3000 | 3.8 | 4000 | | 6AC6GT |
| 6AC7/1852 | PENTODE | HTR | 6.3 | .45 | 8N-OW8 | 8BB | .015 | 11 | 5 | HIGH FREQ<br>AMPLIFIER | 300<br>300 | SELF<br>SELF | 150<br>300 THRU .06 MEG (OTHER VALUES SAME AS ABOVE) REMOTE | 10 | 2.5 | | 1.0MEG | 9000 | 160 OHM —BIAS RES | | | 6AC7/1852 |
| 6AD4 | TRIODE | HTR | 6.3 | .15 | 8DK | 3AA | .7* | 1.9* | 2.2* | OSC-AMP | 100 | RK820 | | 1.4 | | 70 | .035MEG | 2000 | | | | 6AD4 |
| 6AD5G | TRIODE | HTR | 6.3 | 0.3 | 6Q-OS6 | 12BA | 3.3 | 4.1 | 3.9 | AMP CL A | 250 | —2 | | 0.9 | | 100 | 66000 | 1500 | | | | 6AD5G |
| 6AD6G | TWIN ELEC RAY | HTR | 6.3 | .15 | 7AG-OW7 | 9BA | | | | TUNING<br>INDICATOR | TARGET 150v CONTROL ELECTRODE 75v AT 0°, 8v AT 90°, —50v AT 135°<br>TARGET 100v CONTROL ELECTRODE 45v AT 0°, 0v AT 90°, —23v AT 135° | | | | | | | | | | | 6AD6G |
| 6AD7G | TRIODE<br>PENTODE | HTR | 6.3 | .85 | 8AY-OM8 | 14BA | TRIODE SEC<br>PENTODE SEC | | | AMP CL A<br>PR AMP CL A | 250<br>250 | —25<br>—16.5 | <br>250 | 3.7<br>34 | <br>6.5 | 6 | 19000<br>80000 | 325<br>2500 | <br>3.2 | <br>7000 | | 6AD7G |
| 6AD8 | DBLE DI PENTODE | HTR | 6.3 | .3 | 9T-MB9 | 5BC | .002 | 4.0 | 4.6 | DET-AMP | <br>250 | RK<br>225 | <br>85 | <br>6.7 | <br>2.3 | | <br>1 MEG | <br>1100 | | | <br>—15 | 6AD8 |
| 6AE5GT | TRIODE | HTR | 6.3 | .3 | 6Q-OGT6 | 9DB | | | | AMP CL A | 95 | —15 | | 7 | | 4.2 | 3500 | 1200 | | | | 6AE5GT |
| 6AE6G | DUO TRIODE | HTR | 6.3 | .15 | 7AH-OS7 | 12BA | | | | CONTROL FOR<br>6AD6G-6AF6G | 250<br>250 | —1.5<br>—1.5 | | 6.5<br>4.5 | | 25<br>33 | | 1000<br>950 | PLATE R<br>PLATE L | | —35<br>—9.5 | 6AE6G |
| 6AE7GT | TWIN TRIODE | HTR | 6.3 | .5 | 7AX-OGT8 | 9DB | | | | DRIVER 1 SEC<br>TRIODE | 250 | —13.5 | | 5 | | 14 | 9300 | 1500 | | | | 6AE7GT |
| 6AF4<br>6AF4A | TRIODE | HTR | 6.3 | .225 | 7DK-MB7 | 5AC<br>5AA | 1.9 | 2.2 | .45 | UHF OSC | 80 | RK<br>150 | | 16 | | 15 | 2270 | 6600 | | | | 6AF4<br>6AF4A |
| 6AF5G | TRIODE | HTR | 6.3 | .3 | 6Q-OS6 | 12BA | | | | AMP CL A | 180 | —18 | | 7 | | 7.4 | 4900 | 1500 | | | | 6AF5G |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | VOLTS | AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | IN mmfds | OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6AF6G | TWIN ELEC RAY | HTR | 6.3 | .15 | 7AG-OS7 | 9FA | | | | TUNING INDICATOR | TARGET 135v CONTROL ELECTRODE 81v AT 0°, 0v AT 100°<br>TARGET 100v CONTROL ELECTRODE 60v AT 0°, 0v AT 100° | | | | | | | | | | | 6AF6G |
| 6AC5 | PENTODE | HTR | 6.3 | 0.3 | 7BD-MB7 | 5AC | 0.025 | 6.5 | 1.8 | AMP CL A | 250 | —2 | 150 | 7 | 2 | | 0.8MEG | 5000 | | | —8 | 6AC5 |
| 6AG7 | PENTODE | HTR | 6.3 | .65 | 8Y-OW8 | 8FA | .06* | 13.0* | 7.5* | AMP CL A | 300 | —3 | 150 | 30 | 7 | | 0.13MEG | 11000 | 3 | 10000 | —8 | 6AG7 |
| 6AH4GT | TRIODE | HTR | 6.3 | .75 | 8EL-OS6 | 9DB | 4.2* | 7.5* | 3.2* | VERTICAL AMP | 250 | —23 | | 30 | | 8 | | 4500 | | | —40 | 6AH4GT |
| 6AH5G | PWR AMP | HTR | 6.3 | 0.9 | 6AP-OM8 | 16AA | | | | PR AMP CL A | 350 | —18 | 250 | 54 | 2.5 | | 33000 | 5200 | 10.8 | 4200 | | 6AH5G |
| 6AH6 | PENTODE | HTR | 6.3 | 0.45 | 7BK-MB7 | 5AC | 0.02 | 10 | 3.6 | VOLTAGE AMP | 300 | Rk 160 | 150 | 10 | 2.5 | | 0.5MEG | 9000 | | | —7 | 6AH6 |
| 6AH7GT | TWIN TRI | HTR | 6.3 | .3 | 8BE-OGT8 | 9BC | 2.2(1)<br>3.0(2) | 3.2(1)<br>2.9(2) | 3.0(1)<br>2.6(2) | CL A 1 SECT | 250<br>100 | —9<br>—3.6 | | 12<br>3.7 | | 16<br>16 | 6600<br>10300 | 2400<br>1550 | | | —30<br>—8.5 | 6AH7GT |
| 6AJ4 | TRIODE | HTR | 6.3 | .225 | 9BX-MB9 | 5BA | 2.8* | 4.6* | 1.4* | RF AMPLIFIER | 125 | RK 68 | | 16 | | 42 | | 10000 | | | | 6AJ4 |
| 6AJ5 | PENTODE | HTR | 6.3 | 0.175 | 7BD-MB7 | 5AA | 0.01 | 4.1 | 2.0 | VOLTAGE AMP | 28 | Rk 200 | 28 | 3.0 | 1.2 | | 90000 | 2750 | | | | 6AJ5 |
| 6AK5 | PENTODE | HTR | 6.3 | 0.175 | 7BD-MB7 | 5AA | 0.01 | 4.3 | 2.1 | AMP CL A | 180 | —2 | 120 | 7.7 | 2.4 | | 0.69MEG | 5100 | | | —12 | 6AK5 |
| 6AK6 | PENTODE | HTR | 6.3 | 0.15 | 7BK-MB7 | 5AC | 0.12 | 3.6 | 4.2 | POWER AMPLIFIER | 180<br>135 | —9<br>—6 | 180<br>135 | 15<br>11.5 | 2.5<br>2.0 | 400<br>360 | .19MEG<br>.17MEG | 2300<br>2100 | 1.1<br>0.6 | 10000<br>12000 | | 6AK6 |
| 6AK8 | TRIPLE DIODE-TRI | HTR | 6.3 | .45 | 9E-MB9 | 5BC | .04 | 1.9 | 1.6 | AMP CL A | 100<br>250 | —1<br>—3 | | 0.8<br>1.0 | | 70<br>70 | | 1300<br>1200 | | | | 6AK8 |
| 6AL5 | DOUBLE DIODE | HTR | 6.3 | 0.3 | 6BT-MB7 | 5AA | | | 3.2 | DISCRIMINATOR | MAX INVERSE =330v MAX Io = 9madc PER PLATE | | | | | | | | | | | 6AL5 |
| 6AL6G | BEAM PWR AMP | HTR | 6.3 | .9 | 6AM-OM7 | 16BA | | | | POWER AMP CLASS A | 250<br>250 | —14<br>SELF | 250<br>250 | 72<br>75 | 5<br>5.4 | 170 | 22500<br>OHM BIAS RES | 6000 | 6.5<br>6.5 | 2500<br>2500 | | 6AL6G |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES



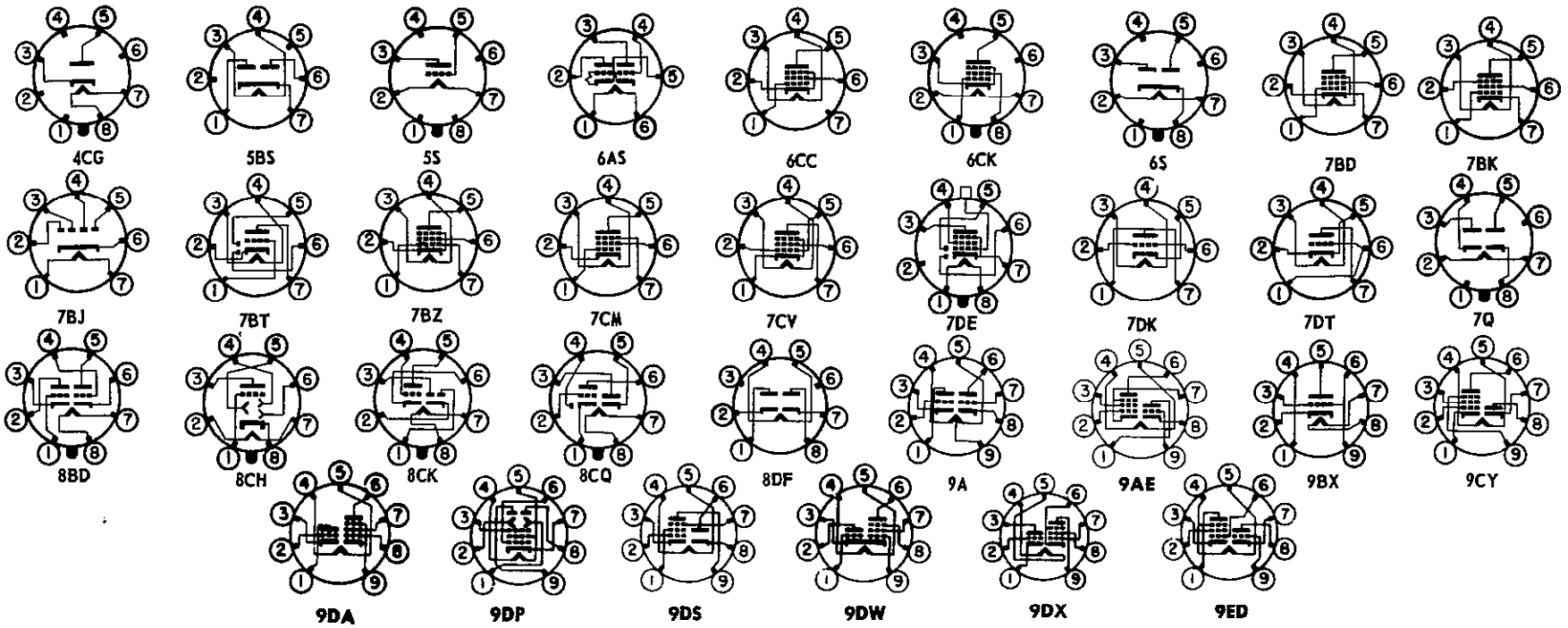



| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | CATHODE HTR OR FIL VOLTS | CATHODE HTR OR FIL AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | CAPACITIES IN mmfds | CAPACITIES OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6AL7GT | ELEC RAY | HTR | 6.3 | 0.15 | 8CH-OGT8 | 9DA | | | | TUNING IND | TARGET = 315v, GRID = 0v, RK = 3300 ohms | | | | | | | | | | —7 | 6AL7GT |
| 6AM4 | TRIODE | HTR | 6.3 | .225 | 9BX-MB9 | 5BA | 2.8* | 4.6* | .16 | UHF MIXER | 150 | RK 100 | | 7.5 | | 85 | | 9000 | | | —5 | 6AM4 |
| 6AM8<br>6AM8A | DIODE PENTODE | HTR | 6.3 | .45 | 9CY-MB9 | 5BB<br>5BB | .015 | 6 | 2.6 | DET-AMP | 200 | RK 120 | 150 | 9.5 | 3 | | .3 MEG | 5800 | | | —9 | 6AM8<br>6AM8A |
| 6AN4 | TRIODE | HTR | 6.3 | .225 | 7DK-MB7 | 5AA | 1.7 | 2.9 | .25 | UHF MIXER | 200 | RK 100 | | 13 | | 70 | | 9000 | | | | 6AN4 |
| 6AN5 | PENTODE | HTR | 6.3 | 0.45 | 7BD-MB7 | 5AC | 0.075 | 9.0 | 4.8 | POWER AMP | 120 | RK120 | 120 | 35 | 12 | | 12500 | 8000 | 1.3 | 2500 | —20 | 6AN5 |
| 6AN6 | QUAD DIODE | HTR | 6.3 | 0.20 | 7BJ-MB7 | 5AC | | | | RECTIFIER | MAX INVERSE =210v | | | MAX Io = 8madc PER DIODE | | | | | | | | 6AN6 |
| 6AN8<br>6AN8A | TRIODE PENTODE | HTR | 6.3 | 0.45 | 9DA-MB9 | 5BB<br>5BB | 1.5<br>0.04 | 2.0<br>7.0 | 0.27<br>2.3 | AMPLIFIER | 300 | Rk 180 | | 13 | | 19 | 5750 | 3300 | | | | 6AN8<br>6AN8A |
| 6AQ4 | TRIODE | HTR | 6.3 | .3 | 7DT-MB7 | 5AC | 2.5 | 8.5 | .2 | RF AMPLIFIER | 250 | —1.5 | | 10 | | 100 | | 8500 | | | | 6AQ4 |
| 6AQ5<br>6AQ5A | BEAM PENTODE | HTR | 6.3 | 0.45 | 7BZ-MB7 | 5AD<br>5AD | 0.17 | 8.0 | 11.0 | POWER AMP | 250 | —12.5 | 250 | 45 | 4.5 | | 52000 | 4100 | 4.5 | 5000 | | 6AQ5<br>6AQ5A |
| 6AQ6 | DOUBLE DI-TRI | HTR | 6.3 | 0.15 | 7BT-MB7 | 5AC | 1.8 | 1.7 | 1.5 | DET-AMP | 250 | —3 | | 1 | | 70 | | 1200 | | | | 6AQ6 |
| 6AQ7GT | DOUBLE DI-TRI | HTR | 6.3 | 0.3 | 8CK-OGT8 | 9DB | 3.0 | 2.8 | 3.2 | DET-AMP | 250 | —2 | | 2.3 | | 70 | | 1600 | | | | 6AQ7GT |
| 6AR5 | PENTODE | HTR | 6.3 | 0.4 | 6CC-MB7 | 5AD | | | | POWER AMP | 250 | —18 | 250 | 32 | 5.5 | | 68000 | 2300 | 3.4 | 7600 | | 6AR5 |
| 6AR7GT | DBLE DI PENTODE | HTR | 6.3 | .3 | 7DE-OW8 | 9CB | .003 | 5.5 | 7.5 | DET-AMPLIFIER | 250 | —2 | 100 | 7.0 | 1.8 | | 1.2MEG | 2500 | | | —25 | 6AR7GT |
| 6AR8 | SHEET BEAM | HTR | 6.3 | 0.3 | 9DP-MB9 | 5BC | | | | SYNCH DETECTOR | SPECIAL CIRCUIT FOR COLOR TV | | | | | | | | | | | 6AR8 |
| 6AS4GT | DIODE | HTR | 6.3 | 1.2 | 4CG-OS6 | 9DB | | | | DAMPER | MAX PEAK INVERSE = 5500 V; MAX Io = 125ma | | | | | | | | | | | 6AS4GT |
| 6AS5 | BEAM PENTODE | HTR | 6.3 | 0.8 | 7CV-MB7 | 5AD | 0.6 | 12 | 6.2 | POWER AMP | 150 | —8.5 | 110 | 35 | 2 | | | 5600 | 2.2 | 4500 | | 6AS5 |
| 6AS6 | PENTODE | HTR | 6.3 | 0.175 | 7CM-MB7 | 5AA | 0.01 | 3.9 | 3 | VOLTAGE AMP | 120 | —2 | 120 | 5.2 | 3.5 | | | 3200 | | | —10 | 6AS6 |
| 6AS7G<br>6AS7GA | DBLE TRI | HTR | 6.3 | 2.5 | 8BD-OM8 | 16AA<br>12ED | | | | POWER AMP | 135 | Rk 250 | | 125 | | 2.1 | | 7500 | | | Each Unit | 6AS7G<br>6AS7GA |
| 6AS8 | DIODE PENTODE | HTR | 6.3 | 0.45 | 9DS-MB9 | 5BB | 0.02 | 2.4 | 7.0 | DET-AMP | 200 | Rk 180 | 150 | 9.5 | 3 | | 0.3 MEG | 6200 | | | —8 | 6AS8 |
| 6AT6 | DOUBLE DI-TRI | HTR | 6.3 | 0.3 | 7BT-MB7 | 5AC | 2.1 | 2.3 | 1.1 | DET-AMP | 250 | —3 | | 1 | | 70 | | 1200 | | | | 6AT6 |
| 6AT8 | TRIODE PENTODE | HTR | 6.3 | 0.45 | 9DW-MB9 | 5BB | 1.5 | 2.0 | 0.5 | OSCILLATOR MIXER | 100<br>250 | 150 | Rk 200 | 8.5<br>7.7 | 1.6 | 40 | 0.75MEG | 5800<br>4600 | | | —10 | 6AT8 |
| 6AU4GT<br>6AU4GTA | DIODE | HTR | 6.3 | 1.8 | 4CG-OS6 | 9FB<br>9FB | | | | DAMPER | MAX PEAK INVERSE = 4500 V; MAX Io = 175ma | | | | | | | | | | | 6AU4GT<br>6AU4GTA |
| 6AU5GT | BM PENT | HTR | 6.3 | 1.25 | 6CK-OS6 | 9DB | .5 | 11.3 | 7.0 | HORIZ. AMP | 315 | Rk 80 | 150 | 59 | 9 | | | | | | | 6AU5GT |
| 6AU6<br>6AU6A | PENTODE | HTR | 6.3 | 0.3 | 7BK-MB7 | 5AC<br>5AC | .0035 | 5.5 | 5 | VOLTAGE AMP | 250 | —1 | 150 | 10.8 | 4.3 | | 1 MEG | 5200 | | | —6.2 | 6AU6<br>6AU6A |
| 6AU8 | TRIODE PENTODE | HTR | 6.3 | 0.6 | 9DX-MB9 | 5BC | 2.2<br>0.046 | 2.8<br>7.0 | 0.32<br>2.6 | AMPLIFIER | 150<br>200 | Rk 150<br>Rk 82 | 125 | 8.5<br>15 | 3.4 | | 8200<br>150000 | | | | —6.5<br>—8 | 6AU8 |
| 6AV4 | DBLE DI | HTR | 6.3 | .95 | 5BS-MB7 | 5AD | | | | FW RECTIFIER | MAX PEAK INVERSE = 1250 V; MAX Io = 90ma | | | | | | | | | | | 6AV4 |
| 6AV5GA | BM PENT | HTR | 6.3 | 1.2 | 6CK-OM6 | 11AB | 0.5 | 14 | 7.0 | AMPLIFIER | 250 | —22.5 | 150 | 57 | 2.1 | | 14500 | 5900 | | | —43 | 6AV5GA |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | CATHODE HTR OR FIL VOLTS | CATHODE HTR OR FIL AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | CAPACITIES IN mmfds | CAPACITIES OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6AV5GT | BM PENT | HTR | 6.3 | 1.2 | 6CK-OGT6 | 9DB | | | | HORIZ. AMP | 200 | 0 | 125 | 66 | 12 | | | | | | | 6AV5GT |
| 6AV6 | DOUBLE DI-TRI | HTR | 6.3 | 0.3 | 7BT-MB7 | 5AC | 2.1 | 2.3 | 0.9 | DET-AMP | 250 | —2 | | 1.2 | | 100 | | 1600 | | | | 6AV6 |
| 6AW7GT | DOUBLE DI-TRI | HTR | 6.3 | 0.3 | 8CQ-OW8 | 9BD | | | | DET-AMP | 100 | 0 | | 1.4 | | 80 | | 1200 | | | | 6AW7GT |
| 6AW8<br>6AW8A | TRIODE PENTODE | HTR | 6.3 | 0.6 | 9DX-MB9 | 5BC<br>5AD | 2.2<br>0.036 | 3.2<br>10.0 | 0.32<br>3.6 | SYNCH SEP. AMPLIFIER | 200 | —2 | 150 | 4.0<br>13.0 | 3.5 | 70 | 0.4MEG | 4000<br>9000 | | | —5<br>—10 | 6AW8<br>6AW8A |
| 6AX4GT | DIODE | HTR | 6.3 | 1.2 | 4CG-OS5 | 9DB | | | | DAMPER | MAX PEAK INVERSE = 4000 V; MAX Io = 125ma | | | | | | | | | | | 6AX4GT |
| 6AX5GT | DBLE DI | HTR | 6.3 | 1.2 | 6S-OS6 | 9DB | | | | FW RECTIFIER | MAX PEAK INVERSE = 1250 V; MAX Io = 150ma | | | | | | | | | | | 6AX5GT |
| 6AX6G | DBLE DI | HTR | 6.3 | 2.5 | 7Q-OM7 | 14BA | | | | FW RECTIFIER | MAX PEAK INVERSE = 1250 V; MAX Io = 250ma | | | | | | | | | | | 6AX6G |
| 6AX7 | DOUBLE TRIODE | HTR | 6.3 | 0.3 | 9A-MB9 | 5BB | 1.7 | 1.6 | 0.46 | VOLTAGE AMP | 250<br>100 | —2<br>—1 | | 1.2<br>0.5 | | 100 | | 1600<br>1250 | | | | 6AX7 |
| 6AX8 | TRIODE PENTODE | HTR | 6.3 | 0.45 | 9AE-MB9 | 5BB | 0.006 | 2.5 | 1.0 | SYNC SEP AMPLIFIER | 150<br>250 | Rk 120 | 110 | 18<br>10 | 3.5 | 40 | | 8500<br>4800 | | | —12 | 6AX8 |
| 6AZ5 | DBLE DI | HTR | 6.3 | .15 | 8DF | 3AA | | | | DETECTOR | MAX PEAK INVERSE = 420 V; MAX Io = 8ma | | | | | | | | | | | 6AZ5 |
| 6AZ8 | TRIODE PENTODE | HTR | 6.3 | 0.45 | 9ED-MB9 | 5BB | 1.7<br>0.02 | 2.0<br>6.5 | 1.7<br>2.2 | OSCILLATOR AMPLIFIER | 200<br>200 | —6 | 150 | 13<br>9.5 | 3.0 | 19 | 0.3MEG | 3300<br>6000 | | | —19 | 6AZ8 |
| 6B4G | TRIODE | FIL | 6.3 | 1.0 | 5S-OM8 | 16AA | 16 | 7 | 5 | PR AMP CL A PUSH-PULL CL AB 2 TUBE | 250<br>325<br>325 | —45<br>—68<br>SELF | | 60<br>80<br>80 | 750 OHM BIAS RES | 4.2 | 800 | 5250 | 3.2<br>15<br>10 | 2500<br>3000<br>5000 | | 6B4G |
| 6B5 | DUO-TRI | HTR | 6.3 | .8 | 6AS-SM6 | 14BA | DRIVER TRIODE OUTPUT TRIODE | | | DIR C'P'D AMP 2 TUBES CL A | 325<br>325 | 0<br>+ | | 9<br>51 | | | | See Type 6N6G Also 13.5 10000 | | | | 6B5 |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

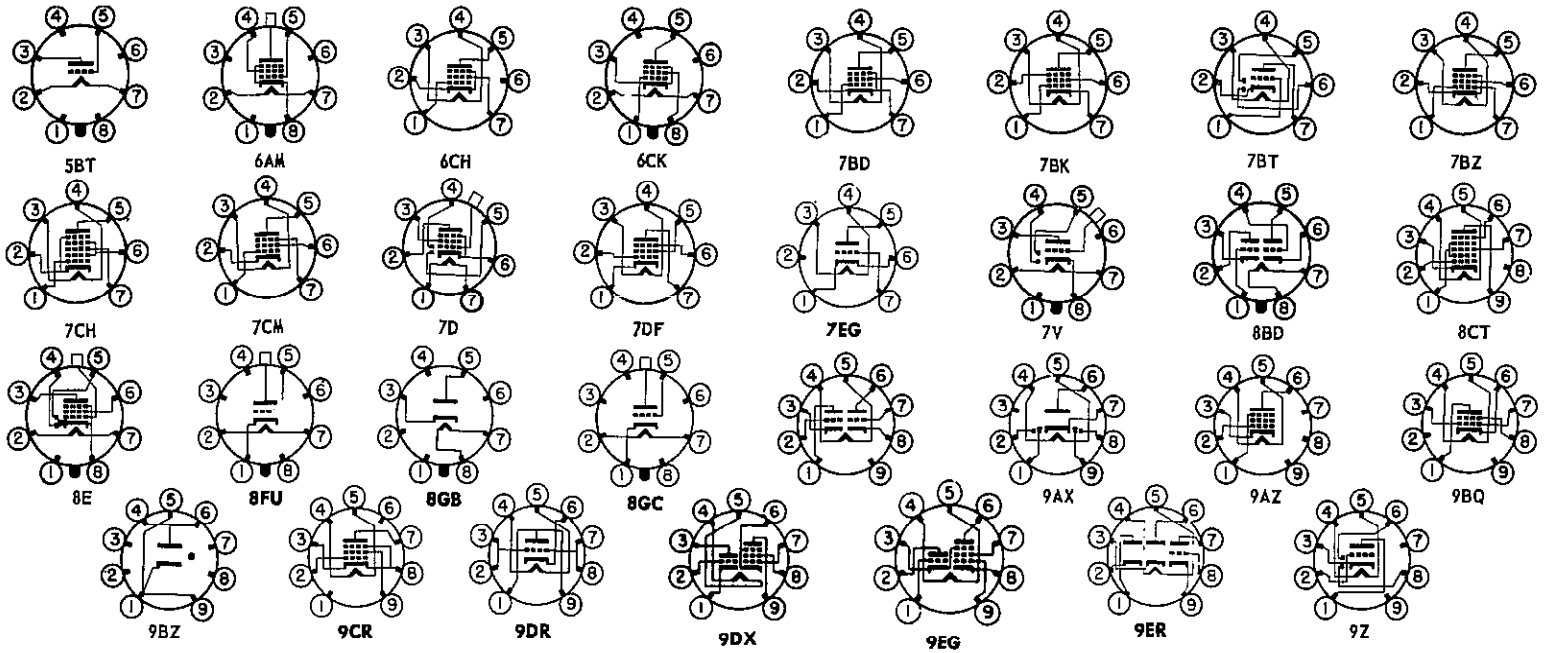


| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | VOLTS | AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | IN mmfds | OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6B6G | DUO-DI TRIODE | HTR | 6.3 | .3 | 7V-OS7 | 12CA | 1.3 | 2.7 | 4.5 | AMPLIFIER CLASS A | 250 | —2 | | 0.9 | | 100 | 91000 | 1100 | | | | 6B6G |
| 6B7<br>6B7S | DUO-DI PENTODE | HTR | 6.3 | .3 | 7D-SS7<br>7D-SS7 | 12DA | .007* | 3.5 | 9.5 | AMPLIFIER CLASS A | 250<br>100 | —3<br>—3 | 125<br>100 | 9.0<br>5.8 | 2.3<br>1.7 | | .6MEG<br>.3MEG | 1125<br>950 | | | —21<br>—17 | 6B7<br>6B7S |
| 6B8<br>6B8G<br>6B8GT | DUO-DI PENTODE | HTR | 6.3 | .3 | 8E-OW8<br>8E-OS8<br>8E-OW8 | 8DA<br>12CA<br>9CB | .005<br>.01*<br>0.005* | 6<br>3.6*<br>4.5* | 9<br>9.5*<br>10* | AMPLIFIER CLASS A | 250<br>100 | —3<br>—3 | 125<br>100 | 10<br>5.8 | 2.3<br>1.7 | | .6MEG<br>.3MEG | 1325<br>950 | | | —21<br>—17 | 6B8<br>6B8G<br>6B8GT |
| 6BA6 | PENTODE | HTR | 6.3 | 0.3 | 7BK-MB7 | 5AC | .0035 | 5.5 | 5.0 | VOLTAGE AMP | 250 | Rk 68 | 100 | 11 | 4.2 | | 1 MEG | 4400 | | | —20 | 6BA6 |
| 6BA7 | PENTA-GRID | HTR | 6.3 | 0.3 | 8CT-MB9 | 5BC | 0.19 | 9.5 | 8.3 | CONVERTER | 250 | —1.0 | 100 | 3.8 | 10.0 | | 1 MEG | 950C | | | —20 | 6BA7 |
| 6BA8<br>6BA8A | TRIODE PENTODE | HTR | 6.3 | 0.6 | 9DX-MB9 | 5BC<br>5BC | 2.2<br>0.04 | 2.5<br>10.0 | 0.4<br>3.6 | AMP CL A | 200<br>200 | —8 | 150 | 8.0<br>13.0 | 3.5 | 18 | 0.4MEG | 2700<br>9000 | | | —16<br>—10 | 6BA8<br>6BA8A |
| 6BC4 | TRIODE | HTR | 6.3 | 0.23 | 9DR-MB9 | 5AA | 1.6 | 2.9 | 0.26 | RF AMPLIFIER | 150 | Rk 100 | | 14.5 | | 48 | 4800 | 10000 | | | —10 | 6BC4 |
| 6BC5 | PENTODE | HTR | 6.3 | .3 | 7BD-MB7 | 5AC | .02* | 6.6* | 3.1* | CL A AMP | 100<br>250 | Rk 180<br>Rk 180 | 100<br>150 | 4.7<br>7.5 | 1.4<br>2.1 | | .6MEG<br>.8MEG | 4900<br>5700 | | | —5<br>—8 | 6BC5 |
| 6BC7 | TRIPLE DI | HTR | 6.3 | .45 | 9AX-MB9 | 5BB | | | | FM DETECTOR | MAX Io = 12ma per plate | | | | | | | | | | | 6BC7 |
| 6BC8 | DOUBLE TRIODE | HTR | 6.3 | 0.4 | 9AJ-MB9 | 5BB | 1.4 | 2.5 | 1.3 | CASCADE AMPLIFIER | 150 | Rk 220 | | 10 | | 35 | | 6200 | | | —13 | 6BC8 |
| 6BD4<br>6BD4A | BEAM TRIODE | HTR | 6.3 | 0.6 | 8FU-OJ6 | 12HE<br>12HE | 1.0 | 3.8 | 0.04 | VOLTAGE REGULATOR | MAX DC PLATE = 27000 volts; MAX Io = 1.5 ma | | | | | | | | | | | 6BD4<br>6BD4A |
| 6BD5GT | BM PENT | HTR | 6.3 | .9 | 6CK-OGT6 | | | | | HORIZ. AMP | MAX Ik = 100ma; MAX PEAK POS. PLATE SURGE = 4000 V | | | | | | | | | | | 6BD5GT |
| 6BD6 | PENTODE | HTR | 6.3 | 0.3 | 7BK-MB7 | 5AC | 0.004 | 4.3 | 5.0 | VOLTAGE AMP | 250 | —3 | 100 | 9 | 3 | | 0.8MEG | 2000 | | | —35 | 6BD6 |
| 6BD7 | DBLE DI TRIODE | HTR | 6.3 | .23 | 9Z-MB9 | 5BC | 1.3 | 2.4 | 1.3 | DET-AMPLIFIER | 250 | —3 | | 1.0 | | 70 | | 1200 | | | | 6BD7 |
| 6BE6 | HEPTODE | HTR | 6.3 | 0.3 | 7CH-MB7 | 5AC | 0.3 | 7.2 | 8.6 | CONVERTER | 250 | —1.5 | 100 | 3 | 7.1 | | 1 MEG | 475C | | | —30 | 6BE6 |
| 6BE8 | TRIODE PENTODE | HTR | 6.3 | 0.45 | 9EG-MB9 | 5BB | 1.8<br>0.04 | 2.8<br>4.4 | 1.5<br>2.6 | OSCILLATOR MIXER | 150<br>250 | Rk 68 | 110 | 18<br>10 | 3.5 | 40 | 0.4MEG | 8500<br>6200 | | | —12<br>—10 | 6BE8 |
| 6BF5 | PENTODE | HTR | 6.3 | 1.2 | 9BZ-MB9 | 5AD | .65 | 14 | 6 | VERT. AMP | 225 | Rk 1200 | TRIODE CONN. | 20 | | 6.7 | | 4200 | | | | 6BF5 |
| 6BF6 | DOUBLE DI-TRI | HTR | 6.3 | 0.3 | 7BT-MB7 | 5AC | 2 | 1.8 | 1.4 | DET-AMP | 250 | —9 | | 9.5 | | 16 | | 1900 | | | | 6BF6 |
| 6BG6G | BEAM PENTODE | HTR | 6.3 | 0.9 | 5BT-OM6 | 16CA | 0.5 | 11 | 6.5 | DEFLECT AMP | MAX PEAK POS. PLATE SURGE = 6000v, MAX Ib = 100ma | | | | | | | | | | | 6BG6G |
| 6BG6GA | BEAM PENTODE | HTR | 6.3 | 0.9 | 5BT-OM6 | 12JE | 0.5 | 11.0 | 6.5 | DEFLECT AMP | MAX PEAK POS. PLATE SURGE = 6000 volts MAX Ib = 100 ma | | | | | | | | | | | 6BG6GA |
| 6BH5 | PENTODE | HTR | 6.3 | .2 | 9AZ-MB9 | 5BC | .002 | 4.9 | 5.5 | RF AMPLIFIER | 250 | —2.5 | 100 | 6.0 | 1.7 | | 1.1MEG | 2200 | | | —18 | 6BH5 |
| 6BH6 | PENTODE | HTR | 6.3 | 0.15 | 7CM-MB7 | 5AC | .0035 | 5.4 | 4.4 | VOLTAGE AMP | 250 | —1 | 150 | 7.4 | 2.9 | | 1.4MEG | 4600 | | | —7.7 | 6BH6 |
| 6BH8 | TRIODE PENTODE | HTR | 6.3 | 0.6 | 9DX-MB9 | 5BC | 2.4<br>0.046 | 2.6<br>7.0 | 0.38<br>2.4 | AMPLIFIER | 150<br>200 | —5 | 125 | 9.5<br>15.0 | 3.4 | 17 | 5150 | 3300<br>7000 | | | —14<br>—8 | 6BH8 |
| 6BJ5 | BM PENT | HTR | 6.3 | .64 | 6CH-M57 | 5AD | | | | POWER AMP | 250 | —5.0 | 250 | 35 | 5.5 | | 40000 | 10500 | 4 | 7000 | | 6BJ5 |
| 6BJ6 | PENTODE | HTR | 6.3 | 0.15 | 7CM-MB7 | 5AC | .0035 | 4.5 | 5 | VOLTAGE AMP | 250 | —1 | 100 | 9.2 | 3.3 | | 1.3MEG | 3800 | | | —20 | 6BJ6 |
| 6BJ7 | TRIPLE DIODE | HTR | 6.3 | .45 | 9AX-MB9 | 5BB | | | | DC RESTORER | MAX PEAK INVERSE = 330 V; MAX PEAK PLATE CURR PER PLATE = 10ma DC OUTPUT CURRENT PER PLATE 1.0ma DC | | | | | | | | | | | 6BJ7 |
| 6BJ8 | DBLE DI TRIODE | | 6.3 | 0.6 | 9ER-MB9 | 5AD | 2.6 | 2.8 | 0.38 | OSCILLATOR | 90 | 0 | | 13.5 | | 22 | 4700 | 4700 | | | —7 | 6BJ8 |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | VOLTS | AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | IN mmfds | OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6BK4 | BEAM TRIODE | HTR | 6.3 | 0.2 | 8GC-QT8 | 12HE | | | | VOLTAGE REGULATOR | MAX DC PLATE = 25000 volts; MAX Io = 1.5 ma | | | | | | | | | | | 6BK4 |
| 6BK5 | BM PENT | HTR | 6.3 | 1.2 | 9BQ-MB9 | 5BC | .6 | 13 | 5.0 | POWER AMP | 250 | —5.0 | 250 | 35 | 3.5 | | .1MEG | 8500 | 3.5 | 6500 | | 6BK5 |
| 6BK6 | DBLE DI TRIODE | HTR | 6.3 | .3 | 7BT-MB7 | 5AD | | | | DET-AMP | 100<br>250 | —1<br>—2 | | 0.5<br>1.2 | | 100<br>100 | 80000<br>62500 | 1250<br>1600 | | | | 6BK6 |
| 6BK7 | TWIN TRIODE | HTR | 6.3 | .45 | 9AJ-MB9 | 5BB | 1.9 | 3.0 | 1.1 | RF AMPLIFIER | 100<br>150 | Rk 120<br>Rk 56 | | 9.0<br>18 | | 37<br>40 | 6100<br>4700 | 6100<br>8500 | | | —9<br>—12 | 6BK7 |
| 6BK7A | TWIN TRIODE | HTR | 6.3 | .45 | 9AJ-MB9 | 5BB | 1.8 | 3.0 | 1.0 | RF AMPLIFIER | 150 | Rk 56 | | 18 | | 43 | 4600 | 9300 | | | —11 | 6BK7A |
| 6BK7B | TWIN TRIODE | HTR | 6.3 | 0.45 | 9AJ-MB9 | 5BB | 1.8 | 3.0 | 1.0 | RF AMPLIFIER | 150 | Rk 56 | | 18 | | 43 | 4600 | 9300 | | | —11 | 6BK7B |
| 6BL4 | DIODE | HTR | 6.3 | 3.0 | 8GB-0J8 | 12ED | 11.5 | 16 | 5 | HW RECTIFIER | MAX PEAK INVERSE = 4500 volts; MAX Io = 200 ma | | | | | | | | | | | 6BL4 |
| 6BL7GT | DBLE TRI | HTR | 6.3 | 1.5 | 8BD-OS8 | 9DB | 4.2* | 5.0* | 3.4* | VERT. AMP | 250 | —9 | | 40 | | 15 | | 7000 | | | —25 | 6BL7GT |
| 6BM5 | BM PENT | HTR | 6.3 | .45 | 7BZ-MB7 | 5AD | .5 | 8.0 | 5.5 | POWER AMP | 250 | —6 | 250 | 30 | 3 | | 60000 | 7000 | 3.5 | 7000 | | 6BM5 |
| 6BN4 | TRIODE | HTR | 6.3 | 0.2 | 7EG-MB7 | 5AC | 1.2 | 3.2 | 1.4 | RF AMPLIFIER | 150 | Rk 220 | | 9 | | 43 | 6300 | 6800 | | | | 6BN4 |
| 6BN5 | PENTODE | HTR | 6.3 | 0.2 | 9CR-MB9 | 5AD | 0.2 | 4.3 | 5.1 | AMPLIFIER | 225 | Rk 360 | 225 | 26 | 4.1 | 11 | | 3200 | 2.8 | 9000 | | 6BN5 |
| 6BN6 | GATED BM | HTR | 6.3 | .3 | 7DF-MB7 | 5AD | | | | DISCRIMINATOR | 80 | INPUT SIG. CENTER FREQ. = 10.7 Mc; FREQ. DEV = ± 75 Kc | | | | | | | | | | 6BN6 |
| 6BN7 | DOUBLE TRIODE | HTR | 6.3 | .75 | 9AJ-MB9 | 5BC | 3<br>.7 | 1.6<br>1.4 | 5.5<br>.3 | SECTION 1<br>SECTION 2 | 250<br>120 | —15<br>—1 | | 24<br>5 | | 12<br>28 | | 5500<br>2000 | | | —35<br>—7 | 6BN7 |
| 6BN8 | DBLE DI TRIODE | HTR | 6.3 | 0.6 | 9ER-MB9 | 5AD | 2.5 | 3.6 | 0.32 | AMPLIFIER | 250 | —3 | | 1.6 | | 70 | 28000 | 2500 | | | —5.5 | 6BN8 |
| 6BQ6G<br>6BQ6GA<br>6BQ6GTA<br>6BQ6GTB | BM PENT<br>BEAM PENTODE | HTR<br>HTR | 6.3<br>6.3 | 1.2<br>1.2 | 6AM-OS7<br>6AM-OGT6 | 12CA<br>11BB<br>9EC<br>9EC | .6<br>0.6 | 15<br>15 | 7.5<br>7.5 | HORIZ AMP<br>POWER AMPLIFIER | 60<br>250<br>250 | 0<br>—22.5<br>—22.5 | 150<br>150<br>150 | 225<br>55<br>55 | 25<br>2.1<br>2.1 | | 20000<br>20000<br>18000 | 5500<br>5500<br>6000 | | | —46<br>—46 | 6BQ6G<br>6BQ6GA<br>6BQ6GTA<br>6BQ6GTB |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

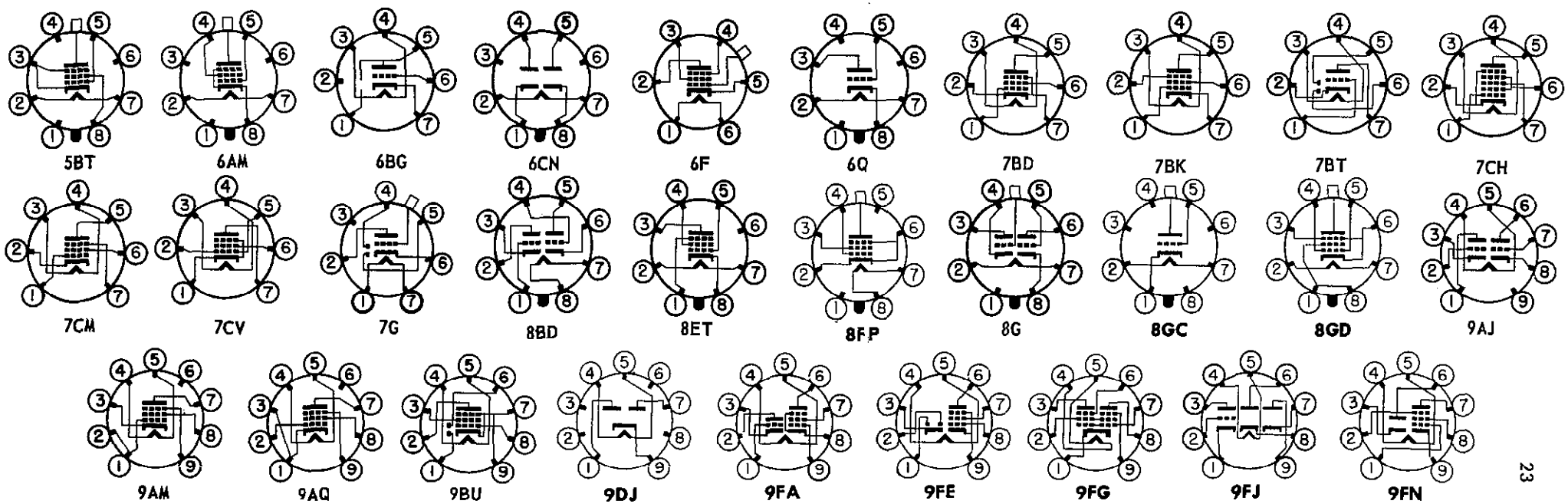


| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | VOLTS | AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | IN mmfds | OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6BQ6GT | BM PENT | HTR | 6.3 | 1.2 | 6AM-OGT7 | 9EC | .95 | 14 | 9.5 | HORIZ AMP | 250 | Rk 43 | 140 | 99 | 11.5 | MAX PEAK POS. PLATE SURGE = 5500 V | | | | | | 6BQ6GT |
| 6BQ7 | DBLE TRI | HTR | 6.3 | .4 | 9AJ-MB9 | 5BB | 1.15 | 2.55 | 1.3 | RF AMPLIFIER | 150 | Rk 220 | | 9 | | 35 | 5800 | 6000 | | | —10 | 6BQ7 |
| 6BQ7A | DBLE TRI | HTR | 6.3 | .4 | 9AJ-MB9 | 5BB | 1.5 | 2.85 | 1.35 | RF AMPLIFIER | 150 | Rk 220 | | 9 | | 39 | 6100 | 6400 | | | —10 | 6BQ7A |
| 6BR8 | TRIODE PENTODE | HTR | 6.3 | 0.45 | 9FA-MB9 | 5BB | 1.8<br>0.015 | 2.5<br>5.0 | 0.4<br>2.6 | OSCILLATOR MIXER | 150<br>250 | Rk 68 | 110 | 18<br>10 | 3.5 | 40 | 0.4MEG | 8500<br>5200 | | | —12<br>—10 | 6BR8 |
| 6BS8 | DOUBLE TRIODE | HTR | 6.3 | 0.4 | 9AJ-MB9 | 5BB | 1.15 | 2.6 | 1.2 | CASCADE AMPLIFIER | 150 | Rk 220 | | 10 | | 36 | 5000 | 7200 | | | —7 | 6BS8 |
| 6BT6 | DBLE DI TRIODE | HTR | 6.3 | .3 | 7BT-MB7 | 5AD | | | | DET-AMPLIFIER | 100<br>250 | —1<br>—3 | | .8<br>1.0 | | 70<br>70 | 54800<br>58000 | 1300<br>1200 | | | | 6BT6 |
| 6BT8 | DBLE DI PENTODE | HTR | 6.3 | 0.45 | 9FE-MB9 | 5BB | 0.04 | 1.3<br>7.0 | 3.0<br>2.3 | DET-AMP | 200 | Rk 180 | 150 | 9.5 | 2.8 | | 0.3MEG | 6200 | | | —8 | 6BT8 |
| 6BU4 | TRIODE | HTR | 6.3 | 0.45 | 8GC-OM8 | 12JE | 0.03 | 2.0 | 8.0 | VOLTAGE REGULATOR | | —8.4 | | | | 1515 | 8.2MEG | 185 | | | | 6BU4 |
| 6BU5 | BEAM PENTODE | HTR | 6.3 | 0.15 | 8FP-OM8 | 11BD | 0.024 | 3.0 | 0.9 | VOLTAGE REGULATOR | 20000 | —2.4 | 70 | 1.0 | 0.4 | | | | | | —6.5 | 6BU5 |
| 6BU6 | DBLE DI TRIODE | HTR | 6.3 | .3 | 7BT-MB7 | 5AD | | | | DET-AMPLIFIER | 250 | —9 | | 9.5 | | 16 | 8500 | 1900 | | | | 6BU6 |
| 6BU8 | TWIN PENTODE | HTR | 6.3 | 0.3 | 9FG-MB9 | 5BC | 1.9 | | | SYNC AGC | 100 | —10 | 67.5 | 2.2 | 3.3 | | | 180 | | | —4.5 | 6BU8 |
| 6BV7 | DBLE DI PENTODE | HTR | 6.3 | .8 | 9BU-MB9 | 5BC | .5 | 11.5 | 9.5 | DET-AMPLIFER | 180<br>250 | —4<br>—5 | 180<br>250 | 20<br>38 | 3.5<br>6.0 | | .13MEG<br>.1 MEG | 8000<br>10000 | 2.0<br>4.0 | 8000<br>8000 | | 6BV7 |
| 6BV8 | DBLE DI TRIODE | HTR | 6.3 | 0.6 | 9FJ-MB9 | 5BB | 2.0 | 3.6 | 0.4 | SYNC DETECTOR | 200 | Rk 330 | | 11 | | 33 | 5900 | 5600 | | | —11 | 6BV8 |
| 6BW4 | DBLE DI | HTR | 6.3 | 0.9 | 9DJ-MB9 | 5AD | | | | FW RECTIFIER | MAX PEAK INVERSE = 1275 volts MAX Io = 350 ma | | | | | | | | | | | 6BW4 |
| 6BW6 | BM PENT | HTR | 6.3 | .45 | 9AM-MB9 | 5BC | | | | POWER AMP | 180<br>250 | —8.5<br>—12.5 | 180<br>250 | 29<br>45 | 3.<br>4.5 | | 58000<br>52000 | 3700<br>4100 | 2.0<br>4.5 | 5500<br>5000 | | 6BW6 |
| 6BX6 | PENTODE | HTR | 6.3 | .3 | 9AQ-MB9 | 5BC | .007 | 7.2 | 3.4 | RF AMPLIFIER | 170 | —2 | 170 | 10 | 2.5 | | .4MEG | 7200 | | | | 6BX6 |
| 6BX7GT | DBLE TRI | HTR | 6.3 | 1.5 | 8BD-OS8 | 9DB | 4.0 | 4.8 | 1.2 | VERT. AMP | 100<br>250 | 0<br>Rk 390 | | 80<br>42 | | 10 | 1300 | 7600 | | | | 6BX7GT |
| 6BX8 | DBLE TRI | HTR | 6.3 | 0.4 | 9AJ-MB9 | 5BB | 1.4 | 2.4 | 1.25 | CASCDAE AMPLIFIER | 65 | —1.0 | | 9 | | 25 | | 6700 | | | —7 | 6BX8 |
| 6BY5G | DBLE DI | HTR | 6.3 | 1.6 | 6CN-OM7 | 14BA | | | | DAMPFER | MAX PEAK INVERSE = 3000 V; MAX Io = 175ma | | | | | | | | | | | 6BY5G |
| 6BY6 | PENTAGRID | HTR | 6.3 | 0.6 | 7CH-MB7 | 5AC | 0.08 | | | GATED AMPLIFIER | 250 | 100 | | 6.5 | | | | 1900 | | | | 6BY6 |
| 6BY7 | PENTODE | HTR | 6.3 | .3 | 9AQ-MB9 | 5BC | .007 | 7.2 | 3.7 | RF AMPLIFIER | 250 | —2 | 100 | 10 | 2.5 | | .5MEG | 6000 | | | | 6BY7 |
| 6BY8 | DIODE PENTODE | HTR | 6.3 | 0.6 | 9FN-MB9 | 5AD | 0.0035 | 5.5 | 5.0 | DETECTOR AMPLIFIER | 100<br>250 | Rk 150<br>Rk 68 | 100<br>150 | 5.0<br>10.6 | 2.1<br>4.3 | | 0.5 MEG<br>1.0 MEG | 3900<br>5200 | | | —4.2<br>—6.5 | 6BY8 |
| 6BZ6 | PENTODE | HTR | 6.3 | 0.3 | 7CM-MB7 | 5AC | 0.025 | 7.0 | 2.0 | AGC IF AMPLIFIER | 125 | 125 | | 14 | | | 0.26MEG | 8000 | | | | 6BZ6 |
| 6BZ7 | DBLE TRI | HTR | 6.3 | .4 | 9AJ-MB9 | 5BC | 1.15 | 2.5 | 1.35 | RF AMPLIFIER | 150 | Rk 220 | | 10 | | 38 | 5600 | 6800 | | | —11 | 6BZ7 |
| 6BZ8 | DBLE TRI | HTR | 6.3 | 0.4 | 9AJ-MB9 | 5BB | 1.15 | | | CASCADE AMPLIFIER | 125 | Rk 100 | | 10 | | 45 | 5600 | 8000 | | | —13 | 6BZ8 |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | VOLTS | AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | IN mmfds | OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6C4 | TRIODE | HTR | 6.3 | 0.15 | 6BG-MB7 | 5AC | 1.6 | 1.8 | 1.3 | H-F POWER TRIODE | 250<br>100 | —8.5<br>0 | | 10.5<br>11.8 | | | 7700<br>6250 | 2200<br>3100 | | | | 6C4 |
| 6C5<br>6C5GT | TRIODE | HTR | 6.3 | .3 | 6Q-OW6<br>6Q-OW6 | 8CA<br>9BC | 2.0<br>2.2* | 3.0<br>4.4* | 11<br>12* | AMPLIFIER CLASS A | 250 | —8 | | 8 | | 20 | 10000 | 2000 | | | | 6C5<br>6C5GT |
| 6C6 | PENTODE | HTR | 6.3 | .3 | 6F-SS6 | 12DB | .007* | 5.0 | 6.5 | AMPLIFIER CLASS A | 250<br>100 | —3<br>—3 | 100<br>100 | 2.0<br>2.0 | .5<br>.5 | | 1.5MEG<br>1 MEG | 1226<br>1185 | | | —7<br>—7 | 6C6 |
| 6C7 | DUO-DI TRIODE | HTR | 6.3 | .3 | 7G-SS7 | | | | | AMP CL A | 250 | —9 | | 5.5 | | 20 | 16000 | 1250 | | | | 6C7 |
| 6C8G | TWIN TR | HTR | 6.3 | .3 | 8G-OS8 | 12CA | | | | CL A 1 SECT | 250 | —4.5 | | 3.2 | | 36 | 22500 | 1600 | | | | 6C8G |
| 6CA5 | BM PENT | HTR | 6.3 | 1.2 | 7CV-MB7 | 5AD | 0.5 | 15 | 9 | AF AMPLIFIER | 125 | —4.5 | 125 | 36 | 4.0 | | 15000 | 9200 | | 4500 | | 6CA5 |
| 6CA7 | BM PENT | HTR | 6.3 | 1.5 | 8ET-OGT8 | | 1.0 | 15.5 | 7.2 | POWER AMP | 250 | —14.5 | 150 | 70 | 10 | | 18000 | 9000 | 8 | | | 6CA7 |
| 6CB5<br>6CB5A | BEAM PENTODE | HTR | 6.3 | 2.5 | 8GD-OJ8 | 16BA<br>12HD | 0.8<br>0.4 | 24<br>22 | 10<br>10 | HORIZ. DEFLECT AMPLIFIER | MAX PEAK POS PLATE PULSE = 6800 volts | | | | | | | | | | | 6CB5<br>6CB5A |
| 6CB6<br>6CB6A | PENTODE<br>PENTODE | HTR<br>HTR | 6.3<br>6.3 | .3<br>0.3 | 7CM-MB7<br>7CM-MB7 | 5AC<br>5AC | .02<br>0.025 | 6.3<br>6.5 | 1.9<br>2.0 | RF PENTODE<br>IF AMPLIFIER | 200<br>125 | Rk 180<br>125 | 150 | 9.5<br>13 | 2.8 | | .6MEG<br>0.28MEG | 6200<br>8000 | | | —8 | 6CB6<br>6CB6A |
| 6CD6G<br>6CD6GA | BM PENT<br>BEAM PENTODE | HTR<br>HTR | 6.3<br>6.2 | 2.5<br>2.5 | 5BT-OM6<br>5BT-OM8 | 16CA<br>12JE | 1.0<br>1.1 | 2.6<br>22 | 10<br>8.5 | HORIZ AMP<br>HORIZ. DEFLECT AMPLIFIER | 430<br>175 | Rk 270<br>—30 | 165<br>175 | 112<br>75 | 14<br>5.5 | MAX PULSE PEAK POS PLATE = 6000 V | 7200 | 7700 | | | —55 | 6CD6G<br>6CD6GA |
| 6CE5 | PENTODE | HTR | 6.3 | 0.3 | 7BD-MB7 | 5AC | 0.03 | 6.5 | 1.9 | RF AMPLIFIER | 125 | | 125 | 11 | 2.3 | | 0.3MEG | 7600 | | | | 6CE5 |
| 6CF6 | PENTODE | HTR | 6.3 | 0.3 | 7CM-MB7 | 5AC | .02 | 6.3 | 1.9 | RF AMPLIFIER | 200 | Rk 180 | 150 | 9.5 | 2.8 | | .6MEG | 6200 | | | —6.5 | 6CF6 |
| 6CG6 | PENTODE | HTR | 6.3 | .3 | 7BK-MB7 | 5AC | .008 | 5.0 | 5.0 | RF AMPLIFIER | 250 | —8 | 150 | 9.0 | 2.3 | | .72MEG | 2000 | | | —24 | 6CG6 |
| 6CG7 | TWIN TRIODE | HTR | 6.3 | 0.6 | 9AJ-MB9 | 5AD | 4.0 | 2.3 | 2.2 | OSCILLATOR | 250 | —8 | | 9 | | 20 | 7700 | 2600 | | | —18 | 6CG7 |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

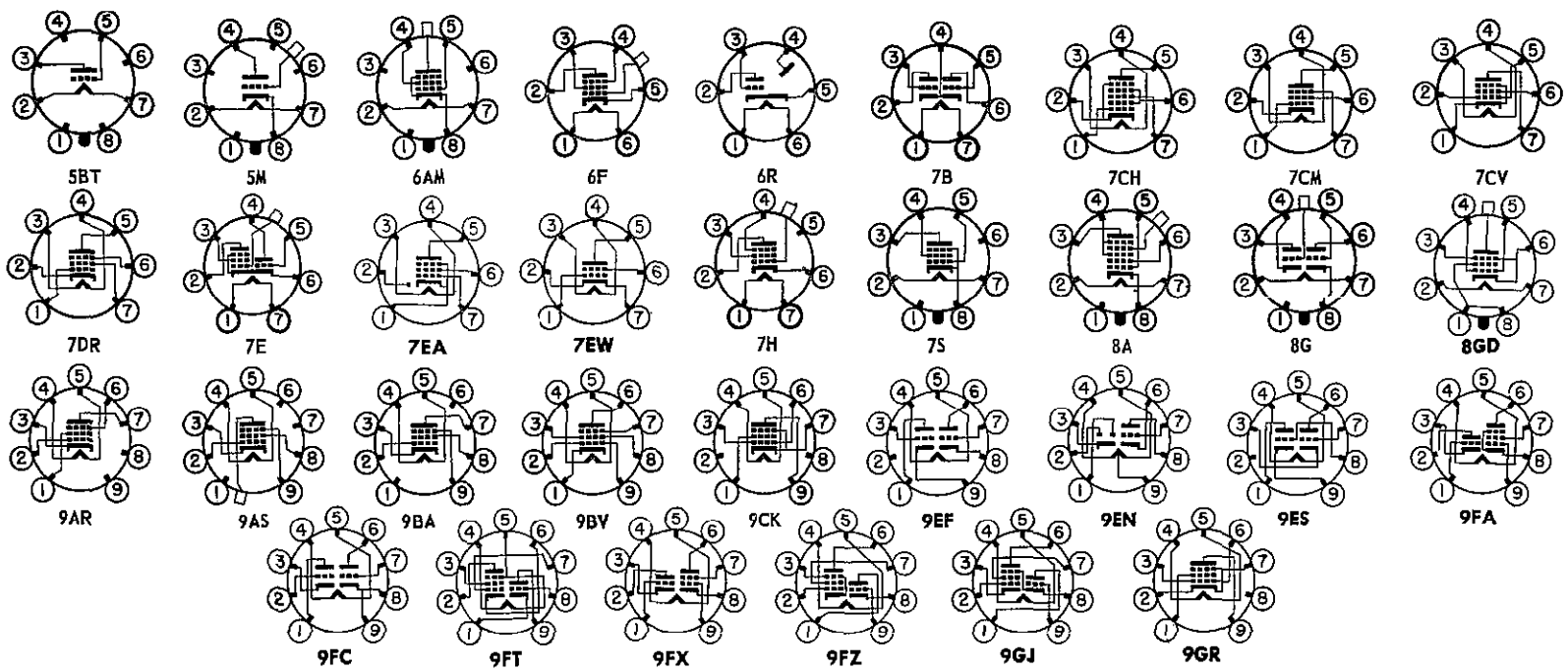


| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | CATHODE HTR OR FIL VOLTS | CATHODE HTR OR FIL AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | CAPACITIES IN mmfds | CAPACITIES OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6CG8<br>6CG8A | TRIODE<br>PENTODE | HTR | 6.3 | 0.45 | 9FA-MB9 | 5BB<br>5BB | 1.5 | 2.6 | 0.05 | OSCILLATOR<br>MIXER | 100<br>250 | Rk 200 | 150 | 8.5<br>7.7 | 1.6 | 40 | 0.75MEG | 5800<br>4600 | | | —10 | 6CG8<br>6CG8A |
| 6CH6 | PENTODE | HTR | 6.3 | .75 | 9BA-MB9 | 5BC | | | | RF AMPLIFIER | 250 | —4.5 | 250 | 40 | 6.0 | | 50000 | 11000 | | | | 6CH6 |
| 6CH8 | TRIODE<br>PENTODE | HTR | 6.3 | 0.45 | 9FT-MB9 | 5BB | 0.025 | 7 | 2.25 | OSCILLATOR<br>AMPLIFIER | 200<br>200 | Rk 180 | 150 | 13<br>9.5 | | 19 | | 3300<br>6200 | | | —19<br>—8 | 6CH8 |
| 6CJ6 | PENTODE | HTR | 6.3 | 1.05 | 9AS-MB9 | 5CD | .8 | 14.7 | 6.0 | CL A AMPLIFIER | 250 | —38.5 | 250 | 32 | 2.4 | | 15000 | 4600 | | | | 6CJ6 |
| 6CK6 | PENTODE | HTR | 6.3 | .71 | 9AR-MB9 | 5BD | .1 | 11.2 | 6.6 | CL A AMPLIFIER | 250 | —5.5 | 250 | 36 | 5 | | .13MEG | 10000 | | | | 6CK6 |
| 6CL5 | BM PENT | HTR | 6.3 | 2.5 | 8GD-OM8 | 12JE | 0.7 | 20.0 | 11.5 | AMPLIFIER | 175 | —40 | 175 | 90 | 7.0 | | 6000 | 6500 | | | —75 | 6CL5 |
| 6CL6 | PENTODE | HTR | 6.3 | .65 | 9BV-MB9 | 5BC | .12 | 11 | 5.5 | CL A AMPLIFIER | 250 | —3 | 150 | 30 | 7 | | .15MEG | 11000 | 2.8 | 7500 | | 6CL6 |
| 6CL8 | TRIODE<br>TETRODE | HTR | 6.3 | 0.45 | 9FX-MB9 | 5BB | 1.8<br>0.028 | 2.7<br>5.0 | 0.4<br>2.0 | OSCILLATOR<br>MIXER | 125 | —1.0 | 125 | 15<br>12 | 4.0 | 40 | 0.1MEG | 8000<br>5800 | | | —9<br>—10 | 6CL8 |
| 6CM6 | BM PENT | HTR | 6.3 | .45 | 9CK-MB9 | 5BC | .7 | 8 | 8.5 | VERT. AMP | MAX PEAK POS. PLATE = 2000 V<br>MAX PLATE DISS. = 8 WATTS; MAX PEAK Ik = 120ma | | | | | | | | | | | 6CM6 |
| 6CM7 | DOUBLE<br>TRIODE | HTR | 6.3 | 0.6 | 9ES-MB9 | 5AD | 3 | 3.5 | 0.4 | OSCILLATOR<br>AMPLIFIER | 200<br>250 | —7<br>—8 | | | | 21 | 10500 | 2000<br>4400 | | | | 6CM7 |
| 6CM8 | TRIODE<br>PENTODE | HTR | 6.3 | 0.45 | 9FZ-MB9 | 5BB | 1.9<br>0.02 | 1.6<br>6.0 | 0.22<br>2.6 | IF AMPLIFIER | 250<br>200 | —2 | 150 | 1.8<br>9.5 | 2.8 | 100 | 0.6MEG | 2000<br>6200 | | | —8 | 6CM8 |
| 6CN7 | DBLE DI<br>TRIODE | HTR | 6.3 | 0.3 | 9EN-MB9 | 5BB | 1.8 | 1.5 | 0.5 | DETECTOR | 100<br>250 | —1.0<br>—3.0 | | 0.8<br>1.0 | | 70 | 54000<br>58000 | 1300<br>1200 | | | | 6CN7 |
| 6CQ6 | PENTODE | HTR | 6.3 | .2 | 7DR-MB7 | 5AC | .01 | 7.0 | 4.5 | RF AMPLIFIER | 250 | —.5 | 100 | 4.9 | 1.25 | | | 2500 | | | —34 | 6CQ6 |
| 6CR6 | DIODE<br>PENTODE | HTR | 6.3 | 0.3 | 7EA-MB7 | 5AA | | | | DET-AMP | 250 | —2 | 100 | 9.5 | 3.0 | | | 1950 | | | —40 | 6CR6 |
| 6CR8 | TRIODE<br>PENTODE | HTR | 6.3 | 0.45 | 9GJ-MB9 | 5BB | 1.6 | 2.0 | 1.4 | IF AMPLIFIER | 125 | —2 | 125 | 12<br>13 | 3 | 22 | 0.3MEG | 4000<br>7700 | | | —6.5 | 6CR8 |
| 6CS5 | BM PENT | HTR | 6.3 | 1.2 | 9CK-MB9 | 5BC | 0.5 | 15 | 9 | AMPLIFIER | 110 | —7.5 | 110 | 50 | 10 | | 13000 | 8000 | | 2000 | | 6CS5 |
| 6CS6 | HEPTODE | HTR | 6.3 | .3 | 7CH-MB7 | 5AC | .05 | 5.5 | 7.5 | CL A AMPLIFIER | 100 | —1.0 | 30 | .75 | 1.1 | | 1 MEG | 950 | | | —2.5 | 6CS6 |
| 6CS7 | TWIN<br>TRIODE | HTR | 6.3 | 0.6 | 9EF-MB9 | 5AD | 2.6 | 1.8 | 0.5 | OSCILLATOR<br>AMPLIFIER | 250 | —8.5<br>—10.5 | | 10.5<br>19.0 | | 17.0<br>15.5 | 7700<br>3450 | 2200<br>4500 | | | —22 | 6CS7 |
| 6CS8 | TRIODE<br>PENTODE | HTR | 6.3 | 0.45 | 9FZ-MB9 | 5BB | 1.6 | 1.9 | 0.26 | IF AMPLIFIER | 125 | —2 | 125 | 12<br>13 | 3 | 22 | 0.3MEG | 4000<br>7700 | | | —6.5 | 6CS8 |
| 6CU5 | BEAM<br>PENTODE | HTR | 6.3 | 1.2 | 7CV-MB7 | 5AD | 0.7 | 13.2 | 8.6 | POWER<br>AMPLIFIER | 120 | —8 | 110 | 50 | 8.5 | | 10000 | 7500 | | 2500 | | 6CU5 |
| 6CX7 | DOUBLE<br>TRIODE | HTR | 6.3 | 0.4 | 9FC-MB9 | 5BB | 1.2 | 2.4 | 1.3 | CASCADE<br>AMPLIFIER | 150 | Rk 220 | | 9 | | 39 | | 6400 | | | —10 | 6CX7 |
| 6CY5 | TETRODE | HTR | 6.3 | 0.2 | 7EW-M7 | 5AA | 0.03 | 4.5 | 3.0 | CL A AMP | 180 | —1.0 | 180 | 10 | 1.5 | | 0.1MEG | 8000 | | | —6 | 6CY5 |
| 6D6 | PENTODE | HTR | 6.3 | .3 | 6F-SS6 | 12DB | .007* | 4.7 | 6.5 | AMP CL A | 250<br>100 | —3<br>—3 | 100<br>100 | 8.2<br>8.0 | 2.0<br>2.2 | | .8MEG<br>.25MEG | 1600<br>1500 | | | —50<br>—50 | 6D6 |
| 6D7 | PENTODE | HTR | 6.3 | .3 | 7H-SS7 | | | | | AMP CL A | 250<br>100 | —3<br>—3 | 100<br>100 | 2.0<br>2.0 | .5<br>.5 | | 1.5MEG<br>1 MEG | 1226<br>1185 | | | —7<br>—7 | 6D7 |
| 6D8G | HEPTODE | HTR | 6.3 | .15 | 8A-OS8 | 12CA | .2* | 8.0* | 11* | OSC SECT<br>MIXER | 250S<br>250 | .05MEG<br>—3 | 100 | 4.3<br>3.5 | 2.6 | | GRID #2<br>.4MEG | RES. .02 MEG<br>550C | | | —35 | 6D8G |
| 6DA6 | PENTODE | HTR | 6.3 | 0.2 | 9BA-MB9 | 5BB | 0.002 | 5.5 | 5.1 | RF AMPLIFIER | 250 | 0 | 100 | 9 | | 19 | 1MEG | 3600 | | | | 6DA6 |
| 6DA7 | DOUBLE<br>TRIODE | HTR | 6.3 | 1.0 | 9EF-MB9 | 5BC | 2.3<br>6.9 | 2.0<br>5.5 | 0.415<br>0.82 | OSCILLATOR<br>AMPLIFIER | 250<br>150 | —8<br>—17.5 | | 9.0<br>40 | | 20<br>6.3 | 7700<br>1100 | 2600<br>5700 | | | —42 | 6DA7 |
| 6DB5 | BM PENT | HTR | 6.3 | 1.2 | 9GR-MB9 | 5BC | 0.5 | 15 | 9 | POWER AMP | 110 | —7.5 | 110 | 50 | 10 | | 13000 | 8000 | | 2000 | | 6DB5 |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | VOLTS | AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | IN mmfds | OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6DB6 | PENTODE | HTR | 6.3 | 0.3 | 7CM-MB7 | 5AC | 0.0035 | 6.0 | 5.0 | DEMODULATOR | 150 | —3.0 | 150 | 5.8 | | | 50000 | 2050 | | | —6.5 | 6DB6 |
| 6DC6 | PENTODE | HTR | 6.3 | 0.3 | 7CM-MB7 | 5AC | 0.02 | 6.5 | 2 | PF AMPLIFIER | 200 | Rk 180 | 150 | 9 | 3 | | 0.5MEG | 5500 | | | —12.5 | 6DC6 |
| 6DE6 | PENTODE | HTR | 6.3 | 0.3 | 7CM-MB7 | 5AC | 0.025 | 6.5 | 2.0 | CL A AMP | 125 | Rk 56 | 125 | 15.5 | 4.2 | | 0.25MEG | 8000 | | | —9 | 6DE6 |
| 6DG6GT | BM PENT | HTR | 6.3 | 1.2 | 7S-OM7 | 9BC | | | | POWER AMP | 110 | —7.5 | 110 | 50 | 10 | | 13000 | 8000 | | | | 6DG6GT |
| 6DK6 | PENTODE | HTR | 6.3 | 0.3 | 7CM-M7 | 5AC | 0.02 | 6.3 | 1.9 | IF AMPLIFIER | 125 | Rk 56 | 125 | 12 | 3.8 | | | 9800 | | | —6.5 | 6DK6 |
| 6DN6 | PENTODE | HTR | 6.3 | 2.5 | 5BT-OM8 | 12JE | 0.8 | 22 | 11.5 | POWER AMP | 125 | —18 | 125 | 70 | 6.3 | | 4000 | 9000 | | | —36 | 6DN6 |
| 6DQ6A | BEAM PENTODE | HTR | 6.3 | 1.2 | 6AM-OM7 | 12JC | 0.55 | 15 | 7 | POWER AMP | 250 | —22.5 | 150 | 75 | 2.4 | | 20000 | 6600 | | | —46 | 6DQ6A |
| 6E5 | ELEC RAY | HTR | 6.3 | .3 | 6R-SS6 | 9FD | | | | TUNING IND | 250 THRU 1 MEG. TARGET 250v, GRID 0v FOR 90°, —8v FOR 0° | | | | | | | | | | | 6E5 |
| 6E6 | TWIN TRI | HTR | 6.3 | .6 | 7B-SM7 | 14BA | PUSH-PULL | | | CL A 1 SECT<br>CL A 2 SECT | 250<br>250 | —27.5<br>—27.5 | | 18<br>36 | | 6 | 3500 | 1700 | 1.6 | 14000 | | 6E6 |
| 6E7 | PENTODE | HTR | 6.3 | .3 | 7H-SS7 | | | | | AMP CL A | 250<br>100 | —3<br>—3 | 100<br>100 | 8.2<br>8.0 | 2.0<br>2.2 | | .8 MEG<br>.25MEG | 1600<br>1500 | | | —50<br>—50 | 6E7 |
| 6F5<br>6F5GT | TRIODE | HTR | 6.3 | .3 | 5M-OW5<br>5M-OW5 | 8DA<br>9EA | 2.0<br>2.0* | 6.0<br>6.0* | 12<br>12* | AMPLIFIER<br>CLASS A | 250<br>100 | —2<br>—1 | | 0.9<br>0.4 | | 100<br>100 | 66000<br>85000 | 1500<br>1150 | | | | 6F5<br>6F5GT |
| 6F6<br>6F6G | PENTODE | HTR | 6.3 | .7 | 7S-OW7<br>7S-OM7 | 8FA<br>14BA | PENTODE CONNECTION | | | PR AMP CL A<br><br>PUSH-PULL<br>CL AB 2 TUBE | 285<br>250<br>375<br>315 | —20<br>—16.5<br>—26<br>—24 | 285<br>250<br>250<br>285 | 38<br>34<br>34<br>62 | 7<br>6.5<br>5<br>12 | (SEE TYPE 2A5 ALSO) | 78000<br>80000 | 2550<br>2500 | 4.8<br>3.2<br>18.5<br>11 | 7000<br>7000<br>10000<br>10000 | | 6F6<br>6F6G |
| 6F7<br>6F7S | TRIODE<br>PENTODE | HTR | 6.3 | .3 | 7E-SS7<br>7E-SS7 | 12DA | 2.0<br>.008* | 2.5<br>3.2 | 3.0<br>12.5 | TRI CL A<br>PENT CL A | 100<br>250 | —3<br>—3 | <br>100 | 3.5<br>6.5 | <br>1.5 | 8<br>900 | 16000<br>.85MEG | 500<br>1100 | (SEE 6P7G ALSO) | | —35 | 6F7<br>6F7S |
| 6F8G | TWIN TR | HTR | 6.3 | .6 | 8G-OS8 | 12CA | 4.0L<br>3.6R | 3.2L<br>3.0R | 3.2L<br>3.8R | AMP CL A<br>ONE SECT | 250<br>90 | —8<br>0 | | 9.0<br>10.0 | | 20<br>20 | 7700<br>6700 | 2600<br>3000 | | | | 6F8G |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES



RAYTHEON

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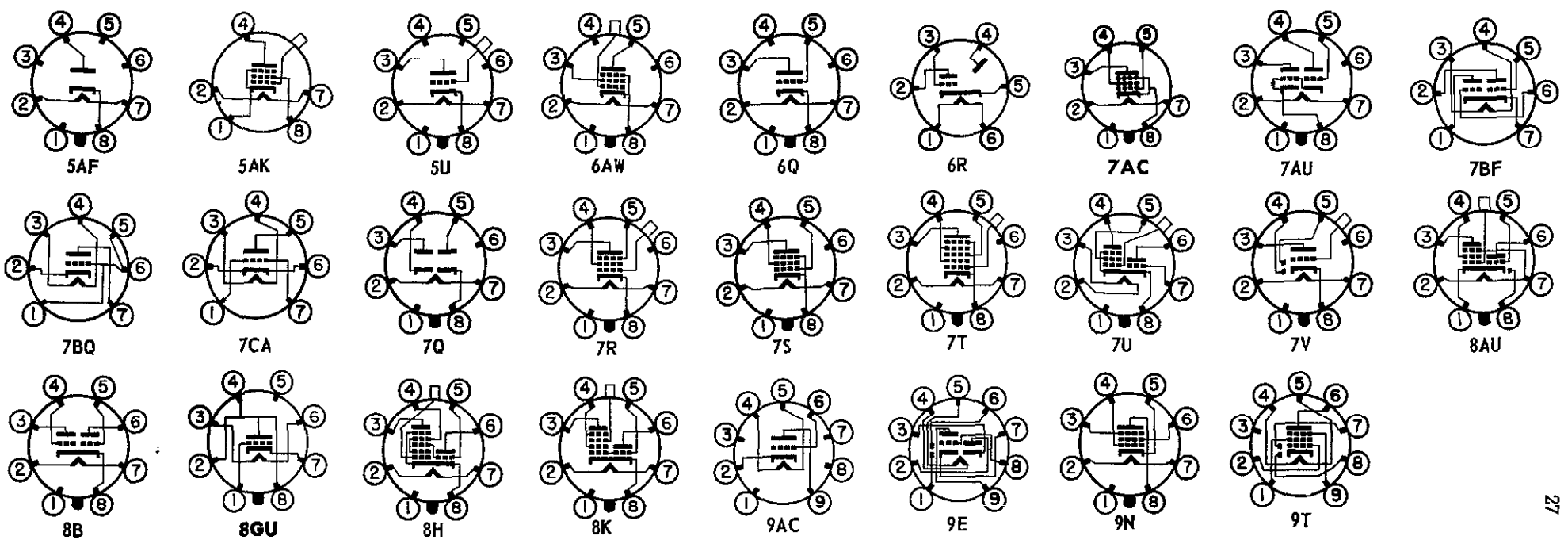
| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | VOLTS | AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | IN mmfds | OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6G5/6H5 | ELEC RAY | HTR | 6.3 | 0.3 | 6R-SS6 | 12BA | | | | TUNING IND | 250 THROUGH 1 MEG., TARGET 250 volts, GRID 0v FOR 90°, —22v FOR 0° | | | | | | | | | | | 6G5/6H5 |
| 6G6G | PENTODE | HTR | 6.3 | .15 | 7S-OS7 | 12BA | | | | POWR AMP<br>CLASS A | 180<br>135 | —9<br>—6 | 180<br>135 | 15<br>11.5 | 2.5<br>2.0 | 400<br>360 | .18MEG<br>.17MEG | 2300<br>2100 | 1.1<br>0.6 | 10000<br>12000 | | 6G6G |
| 6G6GT | PENTODE | HTR | 6.3 | .15 | 7S-MB9 | 9DB | | | | PWR AMPLIFIER | 180 | —9 | 180 | 15 | 2.5 | | .175MEG | 2300 | 1.1 | 10000 | | 6G6GT |
| 6H4GT | DIODE | HTR | 6.3 | .15 | 5AF-OGT5 | 9DB | | | | DETECTOR | 100 | MAX | | 4 MAX | | | 1000 AT .25ma | | | | | 6H4GT |
| 6H6<br>6H6G<br>6H6GT | TWIN DIODE | HTR | 6.3 | .3 | 7Q-OW7<br>7Q-OS7<br>7Q-OW7 | 8BA<br>12BA<br>9BC | .1PP<br>.1PP<br>.1PP | | | DETECTOR | 150 MAX | | | 8 MAX EACH DIODE | | | | | | | | 6H6<br>6H6G<br>6H6GT |
| 6J4 | TRIODE | HTR | 6.3 | 0.4 | 7BQ-MB7 | 5AC | 0.24 | 5.5 | 4 | VOLTAGE AMP | 150 | Rk 100 | | 15 | | 55 | | | | 12000 | | 6J4 |
| 6J5<br>6J5GT | TRIODE | HTR | 6.3 | .3 | 6Q-OW6<br>6Q-OW6 | 8BB<br>9BC | 3.4<br>3.8* | 3.4<br>4.2* | 3.6<br>5.0* | AMPLIFIER<br>CLASS A | 250<br>90 | —8<br>0 | | 9.0<br>10.0 | | 20<br>20 | 7700<br>6700 | 2600<br>3000 | | | | 6J5<br>6J5GT |
| 6J6 | TWIN TRIODE | HTR | 6.3 | 0.45 | 7BF-MB7 | 5AC | 1.6 | 2.2 | 0.4 | OSCILLATOR | 100 | —1 | | 8.5 | | 38 | 6000 | 5300 | | | | 6J6 |
| 6J6A | TWIN TRIODE | HTR | 6.3 | 0.45 | 7BF-MB7 | 5AC | 1.6 | 2.2 | 0.4 | OSCILLATOR | 100 | —1 | | 8.5 | | 38 | 6000 | 5300 | | | | 6J6A |
| 6J7<br>6J7G<br>6J7GT | PENTODE | HTR | 6.3 | .3 | 7R-OW7<br>7R-OS7<br>7R-OW7 | 8DA<br>12CA<br>9CA | .005<br>.005*<br>.005* | 7<br>4.6*<br>4.6* | 12<br>12*<br>12* | AMP CL A<br>PENT CONN<br>TRI CONN | 250<br>100<br>250 | —3<br>—3<br>—8 | 100<br>100 | 2.0<br>2.0<br>6.5 | 0.5<br>0.5 | <br><br>20 | 1.5MEG<br>1.0MEG<br>10500 | 1225<br>1185<br>1900 | | | —7<br>—7 | 6J7<br>6J7G<br>6J7GT |
| 6J8G | TRIODE HEPTODE | HTR | 6.3 | .3 | 8H-OS8 | 12CA | <br>.01* | <br>4.6* | <br>10.5* | OSC-TRIODE<br>MIXER HEPT | 250S<br>250 | .05 MEG<br>—3 | <br>100 | 5.0<br>1.2 | <br>2.9 | TRIODE PLATE RESISTOR .02 MEG<br>4 MEG 290C | | | | | —20 | 6J8G |
| 6K5G | TRIODE | HTR | 6.3 | .3 | 5U-OS7 | 12CA | 2.0 | 2.4 | 3.6 | AMP CL A | 250 | —3 | | 1.1 | | 70 | 50000 | 1400 | | | | 6K5G |
| 6K6GT | PENTODE | HTR | 6.3 | .4 | 7S-OGT7 | 9DB | | | | POWER AMP<br>CLASS A | 315<br>250 | —21<br>—18 | 250<br>250 | 25.5<br>32 | 4.0<br>5.5 | | 75000<br>68000 | 2100<br>2300 | 4.5<br>3.4 | 9000<br>7600 | | 6K6GT |
| 6K7<br>6K7G<br>6K7GT | PENTODE | HTR | 6.3 | .3 | 7R-OW7<br>7R-OS7<br>7R-OW7 | 8DA<br>12CA<br>9CA | .005<br>.007*<br>.005* | 7<br>5*<br>4.6* | 12<br>12*<br>12* | AMPLIFIER<br>CLASS A | 250<br>250<br>100 | —3<br>—3<br>—1 | 125<br>100<br>100 | 10.5<br>7.0<br>9.5 | 2.6<br>1.7<br>2.7 | | .6 MEG<br>.8 MEG<br>.15MEG | 1650<br>1450<br>1650 | | | —52.5<br>—42.5<br>—38.5 | 6K7<br>6K7G<br>6K7GT |
| 6K8<br>6K8G<br>6K8GT | TRIODE HEXODE | HTR | 6.3 | .3 | 8K-OW8<br>8K-OS8<br>8K-OW8 | 8EA<br>12CA<br>9CB | .03<br>.08*<br>.08* | 6.6<br>4.6*<br>4.6* | 3.5<br>4.8*<br>4.8* | OSC-TRIODE<br>MIXER HEX | 100<br>250<br>100 | .05MEG<br>—3<br>—3 | <br>100<br>100 | 3.8<br>2.5<br>2.3 | <br>6.0<br>6.2 | | <br>.6 MEG<br>.4 MEG | 3000<br>350C<br>325C | (TRIODE GRID 0v) | | | —30<br>—30 | 6K8<br>6K8G<br>6K8GT |
| 6L5G | TRIODE | HTR | 6.3 | .15 | 6Q-OS6 | 12BA | 2.7* | 3* | 5* | AMP CL A | 250 | —9 | | 8 | | 17 | 8900 | 1900 | | | —20 | 6L5G |
| 6L6<br>6L6G<br>6L6GA | BEAM PWR AMP | HTR | 6.3 | .9 | 7S-OW7<br>7S-OM8<br>7S-OM7 | 10AA<br>16AA<br>14BA | 2 TUBES<br>2 TUBES<br>2 TUBES | | | POWER AMP<br>CLASS A<br>PP CL A<br>PP CL AB<br>PP CL AB 2 | 350<br>250<br>270<br>360<br>360 | —18<br>—14<br>—17.5<br>—22.5<br>—22.5 | 250<br>250<br>270<br>270<br>270 | 54<br>72<br>134<br>88<br>88 | 2.5<br>5.0<br>11<br>5<br>5 | | 33000<br>22500<br>23500 | 5200<br>6000<br>5700 | 10.8<br>6.5<br>17.5<br>26.5<br>47 | 4200<br>2500<br>5000<br>6600<br>3800 | | 6L6<br>6L6G<br>6L6GA |
| 6L6GB | BEAM PENTODE | HTR | 6.3 | 0.9 | 7AC-OM7 | 12GD | 0.9 | 11.5 | 9.5 | POWER AMP | SEE 6L6GA | | | | | | | | | | | 6L6GB |
| 6L7<br>6L7G | HEPTODE | HTR | 6.3 | .3 | 7T-OW7<br>7T-OS7 | 8DA<br>12CA | .001<br>.005* | 7.5<br>6* | 11<br>10* | AMP CL A<br>MIXER | 250<br>250 | —3<br>—6 | 100<br>150 | 5.3<br>3.3 | 6.5<br>9.2 | 670<br>670 | .6 MEG<br>1 MEG | 1100<br>350C | G3 AT — 3v<br>G3 AT —15v | | —15<br>—45 | 6L7<br>6L7G |
| 6M3 | DIODE | HTR | 6.3 | 3.0 | 8GU-OGT8 | 12CB | 17.5 | 3.3 | 19.5 | DAMPER | MAX PEAK INVERSE = 6000 volts | | | | | | MAX Io = 320 ma | | | | | 6M3 |
| 6M5 | PENTODE | HTR | 6.3 | .71 | 9N-MB9 | 5BD | 1.0 | 10 | 6.2 | PWR AMPLIFIER | 250 | Rk 170 | 250 | 36 | 5.2 | | .04MEG | 10000 | 3.9 | 7000 | | 6M5 |
| 6M8GT | DI-TRI PENTODE | HTR | 6.3 | 0.6 | 8AU-OGT8 | 9EB | 2.5<br>0.015 | 3.7<br>5.2 | 4.3<br>1.0 | CL A TRIODE<br>CL A PENTODE | 100<br>100 | —1<br>—3 | <br>100 | 0.5<br>8.5 | <br>2.7 | 100 | 91000<br>0.2MEG | 1100<br>1900 | | | <br>—35 | 6M8GT |
| 6N4 | TRIODE | HTR | 6.3 | 0.2 | 7CA-MB7 | 5AA | 2.3 | 3.1 | 0.55 | VOLTAGE AMP | 180 | —3.5 | | 12 | | 32 | | 6000 | | | | 6N4 |
| 6N5 | ELEC RAY | HTR | 6.3 | 0.15 | 6R-SS6 | 12BA | | | | TUNING IND | 135 THROUGH 0.25 MEG. TARGET 135 volts, GRID 0v FOR 90°, —12v FOR 0° | | | | | | | | | | | 6N5 |
| 6N6G | DUO TRI | HTR | 6.3 | .8 | 7AU-OM7 | 14BA | DRIVER TRIODE<br>OUTPUT TRIODE | | | DIR C'P'D AMP | 300<br>300 | 0<br>+ | | 8<br>45 | | | 24000 | (SEE TYPE 6B5 ALSO)<br>2400 | 4 | 7000 | | 6N6G |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | CATHODE HTR OR FIL VOLTS | CATHODE HTR OR FIL AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | CAPACITIES IN mmfds | CAPACITIES OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6N7<br>6N7G | TWIN TRIODE | HTR | 6.3 | .8 | 8B-OW8<br>8B-OM8 | 8FA<br>14BA | (SEE TYPE 6A6 ALSO) | | | POWER AMP CL B 2 SECT | 300 | 0 | | 35 | MAX SIG PLATE CUR —70ma 10 | | | | | 8000 | | 6N7<br>6N7G |
| 6N8 | DI-PENT | HTR | 6.3 | .3 | 9T-MB9 | 5BC | .002 | 4.0 | 4.6 | RF-AF AMP | 250 | —2 | 85 | 5 | 1.75 | | 1.6MEG | 2200 | | | | 6N8 |
| 6P5G<br>6P5GT | TRIODE | HTR | 6.3 | .3 | 6Q-OS6<br>6Q-OGT6 | 12BA<br>9DB | 2.6* | 3.4* | 5.5* | AMPLIFIER CLASS A | 250<br>100 | —13.5<br>—5 | | 5<br>2.5 | | 13.8<br>13.8 | 9500<br>12000 | 1450<br>1150 | | | | 6P5G<br>6P5GT |
| 6P7G | TRIODE PENTODE | HTR | 6.3 | .3 | 7U-OS8 | 12CA | 2.0*<br>.008* | 3.5*<br>3.5* | 3.0*<br>12* | OSC-TRIODE MIXER PENT | 100<br>250 | —3 | 100 | 2.4<br>2.8 | 0.6 | | (SEE TYPE 6F7 ALSO)<br>2 MEG 300C | | | | | 6P7G |
| 6Q5G | GAS TETRODE | HTR | 6.3 | 0.6 | 6Q-OS8 | 12BA | 2.8 | 1.7 | 2.0 | THYRATRON | MAX PEAK FORWARD = 650 volts MAX PEAK ANODE CURRENT = 300 ma | | | | | | | | | | | 6Q5G |
| 6Q7<br>6Q7G<br>6Q7GT | DUO-DIODE TRIODE | HTR | 6.3 | .3 | 7V-OW7<br>7V-OS7<br>7V-OW7 | 8DA<br>12CA<br>9CA | 1.5<br>1.3<br>1.6* | 5.5<br>2.7<br>2.2* | 5.0<br>4.5<br>5.0* | AMPLIFIER CLASS A | 250<br>100 | —3<br>—1.0 | | 1.0<br>0.8 | | 70<br>70 | 58000<br>58000 | 1200<br>1200 | | | | 6Q7<br>6Q7G<br>6Q7GT |
| 6R6G | PENTODE | HTR | 6.3 | 0.3 | 6AW-OS6 | 12CA | 0.007 | 4.5 | 11 | AMPLIFIER TELEVISION CIRCUITS | 250 | —3 | 100 | 7.0 | 1.7 | 1160 | 0.8MEG | 1450 | | | —42.5 | 6R6G |
| 6R7<br>6R7GT | DUO DI TRIODE | HTR | 6.3 | .3 | 7V-OW7<br>7V-OGT7 | 8DA<br>9EA | 2.5 | 5.5 | 4.0 | AMPLIFIER CLASS A | 250 | —9 | | 9.5 | | 16 | 8500 | 1900 | .28 | 10000 | | 6R7<br>6R7GT |
| 6R8 | TRIPLE DI TRIODE | HTR | 6.3 | .45 | 9E-MB9 | 5BB | 2.4 | 1.5 | 1.1 | DET-AMPLIFIER | 250 | —9 | | 9.5 | | 16 | 8500 | 1900 | .300 | 10000 | | 6R8 |
| 6S4<br>6S4A | TRIODE | HTR | 6.3 | .6 | 9AC-MB9 | 5BC<br>5BC | | | | VERT AMP | 250 | —8 | | 26 | | 16 | 3600 | 4500 | | | | 6S4<br>6S4A |
| 6S6GT | PENTODE | HTR | 6.3 | 0.45 | 5AK-OGT5 | 9EC | 0.01 | 7.0 | 4.6 | VOLTAGE AMP | 250 | —2.0 | 100 | 13 | 3 | | 0.35MEG | 4000 | | | —30 | 6S6GT |
| 6S7<br>6S7G | PENTODE | HTR | 6.3 | .15 | 7R-OW7<br>7R-OS7 | 8EA<br>12CA | .005<br>.008* | 6.5<br>4.4* | 10.5<br>8.0* | AMPLIFIER CLASS A | 250<br>135 | —3<br>—3 | 100<br>67.5 | 8.5<br>3.7 | 2.0<br>0.9 | | 1 MEG<br>1 MEG | 1750<br>1250 | | | —38.5<br>—25 | 6S7<br>6S7G |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

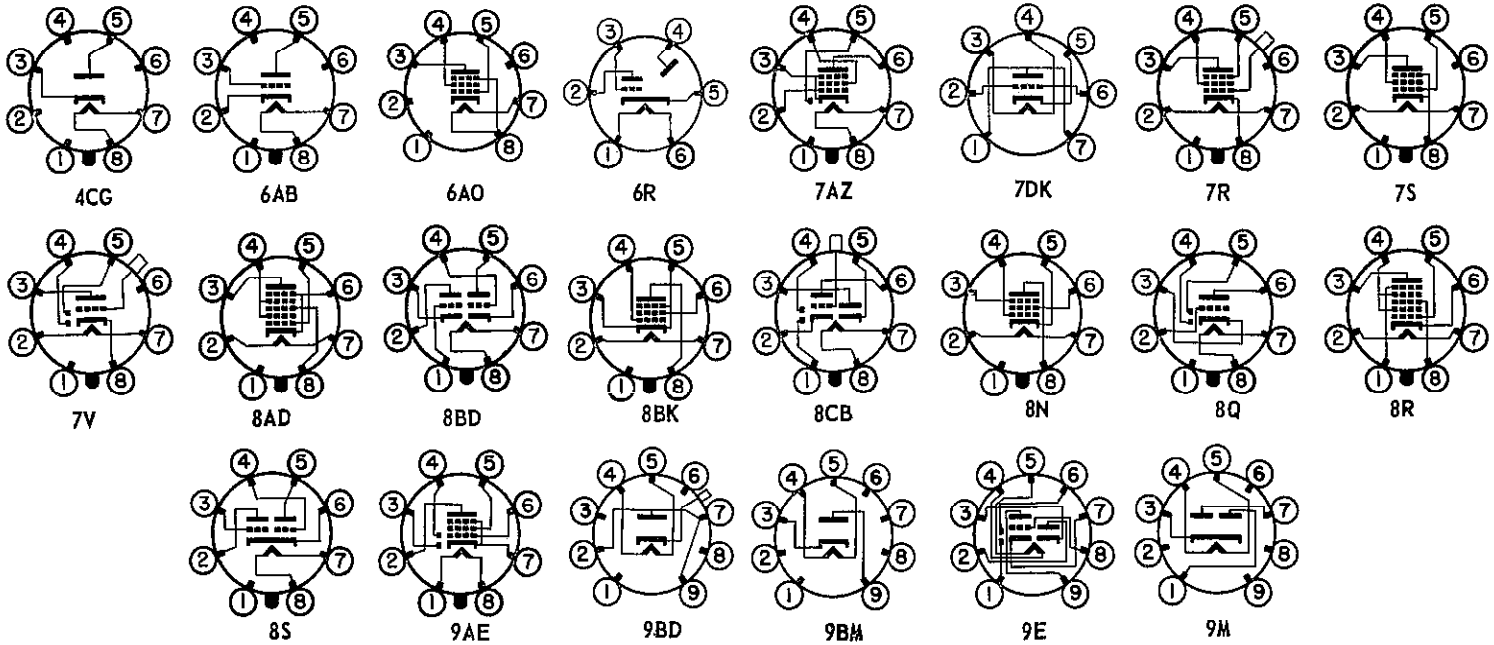


| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | VOLTS | AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | IN mmfds | OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6S8GT | TRIP-DI-TRI | HTR | 6.3 | 0.3 | 8CB-OGT8 | 9EC | | | | DET-AMP | 250 | —2.0 | | 0.9 | | 100 | | 1100 | | | | 6S8GT |
| 6SA7<br>6SA7GT | HEPTODE | HTR | 6.3 | .3 | 8R-OW8<br>8AD-OW8 | 8BB<br>9BC | .13<br>.20 | 9.5<br>11.0 | 12<br>12 | OSC SECT<br>MIXER | OSC GRID RES —.02 MEG<br>250 | —2 | 100 | 3.5 | OCS GRID CUR —.5ma<br>8.5 | | 1.0 MEG 450C | | | | —35 | 6SA7<br>6SA7GT |
| 6SB7Y<br>6SB7GTY | PENTA-GRID | HTR | 6.3 | 0.3 | 8R-OW8<br>8R-OGT8 | 8BB<br>9BC | 0.13 | 9.6 | 9.2 | CONVERTER | OSC GRID RES = 20000 OHMS<br>250 | —1.0 | 100 | 3.8 | 10 | OSC GRID CURR = 0.35 ma | 1 MEG 950C | | | | —20 | 6SB7Y<br>6SB7GTY |
| 6SC7<br>6SC7GT | TWIN TRI | HTR | 6.3 | .3 | 8S-OW8<br>8S-OW8 | 8BB<br>9DB | | | | Cl A 1 SECT | 250 | —2 | | 2 | | 70 | 53000 | 1325 | | | | 6SC7<br>6SC7GT |
| 6SD7GT | PENTODE | HTR | 6.3 | .3 | 8N-OW8 | 9BC | .0035 | 9.0 | 7.5 | AMP CL A | 250<br>100 | —2<br>—2 | 100<br>100 | 6.0<br>5.7 | 1.9<br>2.0 | | 1.0MEG<br>.25MEG | 3600<br>3350 | | | —11<br>—11 | 6SD7GT |
| 6SE7GT | PENTODE | HTR | 6.3 | 0.3 | 8N-OW8 | 9BC | 0.005 | 8.0 | 7.5 | AMP CL A | 250 | —1.5 | 100 | 4.5 | 1.5 | | 1.0MEG | 3100 | | | —5 | 6SE7GT |
| 6SF5<br>6SF5GT | TRIODE | HTR | 6.3 | .3 | 6AB-OW6<br>6AB-OGT6 | 8BB<br>9DB | 2.6<br>2.6* | 4.2<br>4.2* | 3.8<br>3.8* | AMPLIFIER<br>CLASS A | 250<br>100 | —2<br>—1 | | 0.9<br>0.4 | | 100<br>100 | 66000<br>85000 | 1500<br>1150 | | | | 6SF5<br>6SF5GT |
| 6SF7 | DIODE PENTODE | HTR | 6.3 | .3 | 7AZ-OW8 | 8BB | | | | AMP CL A | 250<br>100 | —1<br>—1 | 100<br>100 | 12.4<br>12.0 | 3.3<br>3.4 | | .7 MEG<br>.2 MEG | 2050<br>1975 | | | —35<br>—35 | 6SF7 |
| 6SG7 | PENTODE | HTR | 6.3 | .3 | 8BK-OW8 | 8BB | | | | AMP CL A | 250<br>100 | —1<br>—1 | 125<br>100 | 11.8<br>8.2 | 4.4<br>3.2 | | .9 MEG<br>.25MEG | 4700<br>4100 | | | —14<br>—11.5 | 6SG7 |
| 6SH7GT | PENTODE | HTR | 6.3 | 0.3 | 8BK-OW8 | 9BC | 0.003 | 8.5 | 7.0 | AMPLIFIER<br>CLASS A | 250<br>100 | —1<br>—1 | 150<br>100 | 10.8<br>5.3 | 4.1<br>2.1 | | 0.9MEG<br>0.35MEG | 4900<br>4000 | | | —5.5<br>—4 | 6SH7GT |
| 6SJ7<br>6SJ7GT | PENTODE | HTR | 6.3 | .3 | 8N-OW8<br>8N-OW8 | 8BB<br>9BC | .005 | 6.0 | 7.0 | AMPLIFIER<br>CLASS A | 250<br>100 | —3<br>—3 | 100<br>100 | 3.0<br>2.9 | 0.8<br>0.9 | | 1.5MEG<br>0.7MEG | 1650<br>1575 | | | —9<br>—9 | 6SJ7<br>6SJ7GT |
| 6SK7<br>6SK7GT | PENTODE | HTR | 6.3 | .3 | 8N-OW8<br>8N-OW8 | 8EA<br>9BC | .003<br>.005* | 6.0<br>6.5* | 7.0<br>7.5* | AMPLIFIER<br>CLASS A | 250<br>100 | —3<br>—1 | 100<br>100 | 9.2<br>13.0 | 2.6<br>4.0 | | 0.8MEG<br>.12MEG | 2000<br>2350 | | | —35<br>—35 | 6SK7<br>6SK7GT |
| 6SL7GT | TWIN TR | HTR | 6.3 | 0.3 | 8BD-OGT8 | 9DB | | | | CL A 1 SECT | 250 | —2 | | 2.3 | | 70 | 44000 | 1600 | | | | 6SL7GT |
| 6SN7GT | TWIN TR | HTR | 6.3 | .60 | 8BD-OGT8 | 9DB | 4L<br>4R | 3.2L<br>3.8R | 3.4L<br>3.6R | CL A 1 SECT | 250<br>90 | —8<br>0 | | 9<br>10 | | 20<br>20 | 7700<br>6700 | 2600<br>3000 | | | | 6SN7GT |
| 6SN7GTA<br>6SN7GTB | DOUBLE TRIODE | HTR | 6.3 | .6 | 8BD-OS8 | 9DB<br>9DB | 4.0 | 3.0 | 1.2 | VERT. OSC-AMP | 90<br>250 | 0<br>—8 | | 10<br>9 | | 20<br>20 | 6700<br>7700 | 3000<br>2600 | | | —18 | 6SN7GTA<br>6SN7GTB |
| 6SQ7<br>6SQ7GT | DUO-DI TRIODE | HTR | 6.3 | .3 | 8Q-OW8<br>8Q-OW8 | 8BB<br>9BC | 1.8 | 4.2 | 3.4 | AMPLIFIER<br>CLASS A | 250<br>100 | —2<br>—1 | | 0.9<br>0.4 | | 100<br>100 | 91000<br>110000 | 1100<br>900 | | | | 6SQ7<br>6SQ7GT |
| 6SR7<br>6SR7GT | DUO-DI TRIODE | HTR | 6.3 | .3 | 8Q-OW8<br>8Q-OGT8 | 8BB<br>9DB | 2.0<br>2.3* | 3.4<br>3.5* | 2.8<br>3.8* | AMP CL A | 250 | —9 | | 9.5 | | 16 | 8500 | 1900 | | | | 6SR7<br>6SR7GT |
| 6SS7<br>6SS7GT | PENTODE | HTR | 6.3 | 0.15 | 8N-OW8<br>8N-OGT8 | 8BB<br>9BB | 0.004 | 5.5 | 7.0 | AMPLIFIER<br>CLASS A | 250<br>100 | —3<br>—1 | 100<br>100 | 9.0<br>12.2 | 2.0<br>3.1 | | 1.0MEG<br>0.12MEG | 1850<br>1930 | | | —35<br>—35 | 6SS7<br>6SS7GT |
| 6ST7 | DUO-DI TRIODE | HTR | 6.3 | 0.15 | 8Q-OW8 | 8BB | 1.5 | 2.8 | 3.0 | AMP CL A | 250 | —9 | | 9.5 | | 16 | 8500 | 1900 | | | | 6ST7 |
| 6SU7GTY | DOUBLE TRIODE | HTR | 6.3 | 0.3 | 8BD-OGT8 | 9BC | | | | VOLTAGE AMP | 250 | —2 | | 2.3 | | 70 | | 1600 | | | | 6SU7GTY |
| 6SV7 | DIODE-PENTODE | HTR | 6.3 | 0.3 | 7AZ-OW8 | 8BB | .004 | 6.5 | 6.0 | DET-AMP | 250 | —1 | 150 | 7.5 | 2.8 | | 1.5MEG | 3600 | | | —7.0 | 6SV7 |
| 6SZ7 | DOUBLE DI-TRI | HTR | 6.3 | 0.15 | 8Q-OW8 | 8BB | 1.1 | 2.6 | 2.8 | DET-AMP | 250 | —3 | | 1.0 | | 70 | | 1200 | | | | 6SZ7 |
| 6T4 | TRIODE | HTR | 6.3 | .225 | 7DK-MB7 | 5AA | 1.8 | 2.4 | .45 | UHF OSC | 80 | Rk 150 | | 18 | | 13 | | 7000 | | | —15 | 6T4 |
| 6T5 | ELEC RAY | HTR | 6.3 | 0.3 | 6R-SS6 | 9FD | | | | TUNING IND | 250 THRU 1 MEG, TARGET 250v, GRID 0v FOR MIN, —22v FOR MAX | | | | | | | | | | | 6T5 |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | VOLTS | AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | IN mmfds | OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6T7G-<br>6Q6G | DUO-DI<br>TRIODE | HTR | 6.3 | .15 | 7V-OS7 | 12CA | 1.3 | 2.7 | 4.5 | AMPLIFIER<br>CLASS A | 240<br>135 | —3<br>—1.5 | | 1.2<br>0.9 | | 65<br>65 | 62000<br>65000 | 1050<br>1000 | | | | 6T7G-<br>6Q6G |
| 6T8<br>6T8A | TRIP-<br>DI-TRI | HTR | 6.3 | 0.45 | 9E-MB9 | 5BB<br>5BB | 2.4 | 1.5 | 1.1 | DET-AMP | 250 | —3 | | 1.0 | | 70 | | 1200 | | | | 6T8<br>6T8A |
| 6U3 | DIODE | HTR | 6.3 | .9 | 9BM-MB9 | 5BD | | | | DAMPER | MAX PEAK INVERSE = 4000 V; MAX Io = 180ma | | | | | | | | | | | 6U3 |
| 6U4GT | DIODE | HTR | 6.3 | 1.2 | 4CG-OGT5 | 9DB | | | | DAMPER | MAX PEAK INVERSE = 3850 V; MAX Io = 138ma DC | | | | | | | | | | | 6U4GT |
| 6U5/6G5 | ELEC RAY | HTR | 6.3 | .3 | 6R-SS6 | 9FD | | | | TUNING IND | 250 THRU 1 MEG TARGET 250v, GRID 0v FOR 90°, —22v FOR 0°<br>100 THRU .5 MEG TARGET 100v, GRID 0v FOR 90°, — 8v FOR 0° | | | | | | | | | | | 6U5/6G5 |
| 6U6GT | BEAM<br>PWR AMP | HTR | 6.3 | .75 | 7S-OGT7 | 9DB | | | | POWER AMP<br>CLASS A | 200<br>110 | —14<br>—10.5 | 135<br>110 | 55<br>44 | 3<br>4 | | 20000<br>10000 | 6200<br>5600 | 5.5<br>2.0 | 3000<br>2000 | | 6U6GT |
| 6U7G | PENTODE | HTR | 6.3 | .3 | 7R-OS7 | 12CB | .007* | 5* | 9* | AMP CL A | 250<br>100 | —3<br>—3 | 100<br>100 | 8.2<br>8.0 | 2.0<br>2.2 | | .8 MEG<br>.25MEG | 1600<br>1500 | | | —50<br>—50 | 6U7G |
| 6U8<br>6U8A | TRIODE<br>PENTODE | HTR | 6.3 | .45 | 9AE-MB9 | 5BB<br>5BB | 1.8*<br>.01* | 2.5*<br>5.0* | 1.0*<br>2.6* | TRIODE SECT<br>PENT SECT | 150<br>250 | Rk 56<br>Rk 68 | | 18<br>10 | 3.5 | 40 | .4 MEG | 8500<br>5200 | | | —12<br>—10 | 6U8<br>6U8A |
| 6V3 | DIODE | HTR | 6.3 | 1.75 | 9BD-MB9 | 5CC | | | | DAMPER | MAX PEAK INVERSE = 6000 V; MAX Io = 135ma DC | | | | | | | | | | | 6V3 |
| 6V4 | DBLE DI | HTR | 6.3 | .6 | 9M-MB9 | 5BD | | | | FW RECTIFIER | MAX PEAK INVERSE = 980 V; MAX Io = 90ma | | | | | | | | | | | 6V4 |
| 6V5GT | BEAM<br>PENTODE | HTR | 6.3 | 0.45 | 6AO-OGT8 | 9DB | 0.6 | 9.0 | 10.0 | POWER AMP | 315 | —13 | 225 | 35 | 6.0 | | 77000 | 3750 | 5.5 | 8500 | | 6V5GT |
| 6V6<br>6V6GT<br>6V6GTA | BEAM<br>POWER<br>AMP | HTR | 6.3 | .45 | 7S-OW7<br>7S-OW7 | 8FA<br>9DB<br>9DB | | 2 TUBES | | AMPLIFIER<br>CLASS A<br>PP CL AB | 315<br>250<br>250<br>285 | —13<br>—12.5<br>—15<br>—19 | 225<br>250<br>250<br>285 | 34<br>45<br>70<br>70 | 2.2<br>4.5<br>5.0<br>4.0 | | 77000<br>52000<br>60000<br>65000 | 3750<br>4100<br>3750<br>3600 | 5.5<br>4.5<br>10<br>14 | 8500<br>5000<br>10000<br>8000 | | 6V6<br>6V6GT<br>6V6GTA |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

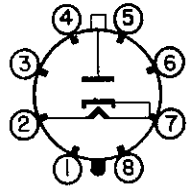


| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | VOLTS | AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | IN mmfds | OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6V7G | DUO-DI TRIODE | HTR | 6.3 | .3 | 7V-OS7 | 12CA | 1.7 | 2.0 | 3.5 | AMPLIFIER CLASS A | 250<br>180 | —20<br>—13.5 | | 8<br>6 | | 8.3<br>8.3 | 7500<br>8500 | 1100<br>975 | .35<br>.16 | 20000<br>20000 | | 6V7G |
| 6V8 | TRIPLE DI TRIODE | HTR | 6.3 | .45 | 9AH-MB9 | 5BB | | | | DET-AMPLIFIER | 100<br>250 | —1<br>—3 | | .8<br>1.0 | | 70<br>70 | 54000<br>58000 | 1300<br>1200 | | | | 6V8 |
| 6W4GT | DIODE | HTR | 6.3 | 1.2 | 4CG-OGT6 | 9DB | | | | HW RECTIFIER | MAX PEAK INVERSE = 1250 volts, MAX Io = 125 ma | | | | | | | | | | | 6W4GT |
| 6W5G | TWIN DI | HTR | 6.3 | .9 | 6S-OS6 | 12BA | | | | FULL WAVE RECTIFIER | 325<br>450 | RMS MAX COND IN 90 DC MAX<br>RMS MAX CHOKE IN 90 DC MAX | | | | | TUBE DROP 24v AT 90ma DC | | | | | 6W5G |
| 6W6GT | TETRODE PWR AMP | HTR | 6.3 | 1.25 | 7S-OGT7 | 9DB | | | | AMPLIFIER CLASS A | 135 | —9.5 | 135 | 58 | 2.8 | 215 | 24000 | 9000 | 3.3 | 2000 | | 6W6GT |
| 6W7G | PENTODE | HTR | 6.3 | .15 | 7R-OS7 | 12CA | .007* | 5.0* | 8.5* | AMP CL A | 250 | —3 | 100 | 2.0 | 0.5 | | 1.5MEG | 1225 | | | —7 | 6W7G |
| 6X4 | DOUBLE DIODE | HTR | 6.3 | 0.6 | 5BS-MB7 | 5AD | | | | FW RECTIFIER | MAX PEAK INVERSE = 1250 volts, MAX Io = 70 ma | | | | | | | | | | | 6X4 |
| 6X5<br>6X5GT | TWIN DIODE | HTR | 6.3 | .6 | 6S-OW6<br>6S-OGT6 | 8FA<br>9DB | | | | FULL WAVE RECTIFIER | 325<br>450 | RMS MAX COND IN 70 DC MAX<br>RMS MAX CHOKE IN 70 DC MAX | | | | | TUBE DROP 22v AT 70ma DC | | | | | 6X5<br>6X5GT |
| 6X8<br>6X8A | TRIODE PENTODE | HTR | 6.3 | .45 | 9AK-MB9 | 5BB<br>5BB | 1.4<br>0.6 | 2.6<br>4.5 | 1.0<br>1.2 | TRIODE SECT<br>PENTODE SECT | 100<br>250 | Rk 100<br>Rk 200 | <br>150 | 8.5<br>7.7 | <br>1.6 | 40 | <br>.65MEG | 5800<br>4600 | | | —10<br>—8 | 6X8<br>6X8A |
| 6Y3G | DIODE | HTR | 6.3 | 0.7 | 4AC-OS6 | 12CA | | | | HW RECTIFIER MAX PEAK INVERSE = 14000 volts, MAX Io — 7.5 ma | | | | | | | | | | | | 6Y3G |
| 6Y5 | TWIN DIODE | HTR | 6.3 | .8 | 6J-SS6 | 12BA | | (MERCURY VAPOR) | | FULL WAVE RECTIFIER | 325<br>450 | RMS MAX COND IN 60 DC MAX<br>RMS MAX CHOKE IN 60 DC MAX | | | | | TUBE DROP 20v AT 60ma DC | | | | | 6Y5 |
| 6Y6G<br>6Y6GA | BEAM PWR AMP | HTR | 6.3 | 1.25 | 7S-OM7 | 14BA<br>12GD | | | | POWER AMP CLASS A | 200<br>135 | —14<br>—13.5 | 135<br>135 | 61<br>58 | 2.2<br>3.5 | | 18300<br>9300 | 7100<br>7000 | 6.0<br>3.6 | 2600<br>2000 | | 6Y6G<br>6Y6GA |
| 6Y7G | TWIN TRIODE | HTR | 6.3 | .6 | 8B-OS8 | 12BA | | | | CL B AMP 2 SECTIONS | 250<br>180 | 0<br>0 | | 10.6 NO SIG<br>7.6 NO SIG | | | | | 8<br>5.5 | 14000<br>7000 | | 6Y7G |
| 6Z5 | TWIN DIODE | HTR | 12.6 or 6.3 | .4<br>.8 | 6K-SS6 | 12BA | | | | FULL WAVE RECTIFIER | 325<br>450 | RMS MAX COND IN 60 DC MAX<br>RMS MAX CHOKE IN 60 DC MAX | | | | | TUBE DROP 20v AT 60ma DC | | | | | 6Z5 |
| 6Z7G | TWIN TRIODE | HTR | 6.3 | .3 | 8B-OS8 | 12BA | | | | CL B AMP 2 SECTIONS | 180<br>135 | 0<br>0 | | 8.4 NO SIG<br>6.0 NO SIG | | | | | 4.2<br>2.5 | 12000<br>9000 | | 6Z7G |
| 6ZY5G | TWIN DI | HTR | 6.3 | .3 | 6S-OS6 | 12BA | | | | FULL WAVE RECTIFIER | 325<br>450 | RMS MAX COND IN 40 DC MAX<br>RMS MAX CHOKE IN 40 DC MAX | | | | | TUBE DROP 18v AT 40ma DC | | | | | 6ZY5G |
| 7A4 | TRIODE | HTR | 6.3 | .3 | 5AC-L8 | 9AC | 4 | 3.4 | 3.0 | AMPLIFIER CLASS A | 250<br>90 | —8<br>0 | | 9<br>10 | | 20<br>20 | 7700<br>6700 | 2600<br>3000 | | | | 7A4 |
| 7A5 | PENTODE | HTR | 6.3 | .75 | 6AA-L8 | 9AD | | | | POWER AMP CLASS A | 125<br>110 | —9<br>—7.5 | 125<br>110 | 44.0<br>40.0 | 3.3<br>3.0 | | 17000<br>14000 | 6000<br>5800 | 2.2<br>1.5 | 2700<br>2500 | | 7A5 |
| 7A6 | DUO-DI | HTR | 6.3 | .15 | 7AJ-L8 | 9AC | .05PP | | | DETECTOR | 150 | RMS MAX | | 8 DC MAX | | | TUBE DROP 11v AT 16ma DC | | | | | 7A6 |
| 7A7 | PENTODE | HTR | 6.3 | .3 | 8V-L8 | 9AC | .005 | 6.0 | 7.0 | AMP CL A | 250<br>100 | —3<br>—1 | 100<br>100 | 9.2<br>13.0 | 2.6<br>4.0 | 1600<br>1600 | .8 MEG<br>.12MEG | 2000<br>2350 | | | —35<br>—35 | 7A7 |
| 7A8 | OCTODE | HTR | 6.3 | .15 | 8U-L8 | 9AC | .15 | 7.5 | 9.0 | OSC SECT MIXER | 250S<br>250 | .05MEG<br>—3 | 100 | 4.2<br>3.0 | 3.2 | | GRID #2 RES<br>.7 MEG 550C | | .02 MEG | | —30 | 7A8 |
| 7AB7 | PENTODE | HTR | 6.3 | 0.15 | 8BO-L8 | 9AB | .06 | 3.5 | 4.0 | VOLTAGE AMP | 250 | —2 | 100 | 4.0 | 1.3 | | .05MEG | 1800 | | | —9 | 7AB7 |
| 7AD7 | PENTODE | HTR | 6.3 | 0.6 | 8V-L8 | 9AD | .03 | 11.5 | 7.5 | VOLTAGE AMP | 300 | Rk 68 | 150 | 28 | 7.0 | | 0.3MEG | 9500 | | | | 7AD7 |
| 7AF7 | DOUBLE TRIODE | HTR | 6.3 | 0.3 | 8AC-L8 | 9AC | 2.3 | 2.2 | 1.6 | VOLTAGE AMP | 100 | 0 | | 10.8 | | 17 | | 2600 | | | | 7AF7 |
| 7AG7 | PENTODE | HTR | 6.3 | 0.15 | 8V-L8 | 9AC | 0.005 | 7.0 | 6.0 | VOLTAGE AMP | 250 | Rk 250 | 250 | 6.0 | 2.0 | | >1MEG | 4200 | | | —10 | 7AG7 |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | VOLTS | AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | IN mmfds | OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7AH7 | PENTODE | HTR | 6.3 | 0.15 | 8V-L8 | 9AC | 0.005 | 7.0 | 6.5 | VOLTAGE AMP | 250 | Rk 250 | 250 | 6.8 | 1.9 | | 1MEG | 3300 | | | —20 | 7AH7 |
| 7AJ7 | PENTODE | HTR | 6.3 | 0.3 | 8V-L8 | 9AC | 0.007 | 6.0 | 6.5 | VOLTAGE AMP | 250 | —3.0 | 100 | 2.2 | 0.7 | | > 1MEG | 1575 | | | —8.5 | 7AJ7 |
| 7AK7<br>7AU7 | PENTODE<br>TWIN TRIODE | HTR<br>HTR | 6.3<br>7.0 | 0.8<br>0.3 | 8V-L8<br>9A-MB9 | 9AD<br>5BB | 0.7<br>1.5 | 12<br>1.6 | 9.5<br>0.4 | GATING TUBE<br>AMPLIFIER | 150<br>250 | 0<br>—8.5 | 90 | 40<br>10.5 | 21 | <br>17 | 11500<br>7700 | 6500<br>2200 | | | <br>—24 | 7AK7<br>7AU7 |
| 7B4 | TRIODE | HTR | 6.3 | .3 | 5AC-L8 | 9AC | 1.6* | 3.6* | 3.4* | AMP CL A | 100<br>250 | —1<br>—2 | | 0.5<br>0.9 | | 100<br>100 | 85000<br>66000 | 1175<br>1500 | | | | 7B4 |
| 7B5 | PENTODE | HTR | 6.3 | .4 | 6AA-L8 | 9AD | | | | POWER AMP CLASS A | 315<br>100 | —24<br>—7 | 250<br>100 | 25.5<br>9.0 | 4.0<br>1.6 | | 75000<br>.1 MEG | 2100<br>1500 | 4.5<br>.35 | 9000<br>12000 | | 7B5 |
| 7B6 | DUO-DI TRIODE | HTR | 6.3 | .3 | 8W-L8 | 9AC | 1.5 | 3.0 | 3.0 | AMPLIFIER CLASS A | 250<br>100 | —2<br>—1 | | 0.9<br>0.4 | | 100<br>100 | 91000<br>110000 | 1100<br>900 | | | | 7B6 |
| 7B7 | PENTODE | HTR | 6.3 | .15 | 8V-L8 | 9AC | .007 | 5.0 | 6.0 | AMP CL A | 250<br>100 | —3<br>—3 | 100<br>100 | 8.5<br>8.2 | 1.7<br>1.8 | | .7 MEG<br>.3 MEG | 1700<br>1675 | | | —40<br>—40 | 7B7 |
| 7B8 | HEPTODE | HTR | 6.3 | .3 | 8X-L8 | 9AC | <br><br>.2 | <br><br>10.0 | <br><br>9.0 | OSC SECT<br><br>MIXER | 250S<br>100<br>250<br>100 | .05MEG<br>.05MEG<br>—3<br>—1.5 | <br><br>100<br>50 | 4.0<br>2.0<br>3.5<br>1.1 | <br><br>2.7<br>1.3 | | GRID #2 RES .02 MEG<br><br>.36MEG<br>.6 MEG | <br><br>550C<br>360C | | | <br><br>—35<br>—20 | 7B8 |
| 7C4/1203A | DIODE | HTR | 6.3 | 0.150 | 4AH-L8 | 9AC | 0.8 | 2.2 | 3.0 | DETECTOR | 117 MAX | | | 5 MAX | | | | | | | | 7C4/1203A |
| 7C5 | BEAM PWR AMP | HTR | 6.3 | .45 | 6AA-L8 | 9AD | | PUSH-PULL | | AMPLIFIER CLASS A<br>PP CL AB | 315<br>250<br>250<br>285 | —13<br>—12.5<br>—15<br>—19 | 225<br>250<br>250<br>285 | 34<br>45<br>70<br>70 | 2.2<br>4.5<br>5.0<br>4.0 | | 77000<br>52000<br>60000<br>65000 | 3750<br>4100<br>3750<br>3600 | 5.5<br>4.5<br>10<br>14 | 8500<br>5000<br>10000<br>8000 | | 7C5 |
| 7C6 | DUO-DI TRIODE | HTR | 6.3 | .15 | 8W-L8 | 9AC | 1.4 | 2.4 | 3.0 | AMPLIFIER CLASS A | 250<br>100 | —1<br>0 | | 1.3<br>1.0 | | 100<br>85 | .1 MEG<br>.1 MEG | 1000<br>850 | | | | 7C6 |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES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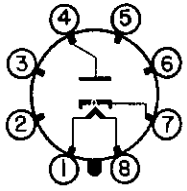
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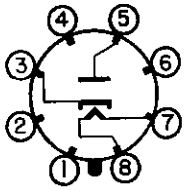
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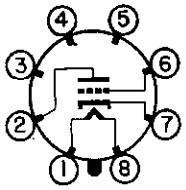
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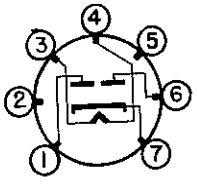
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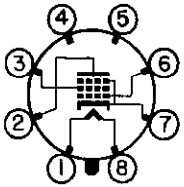
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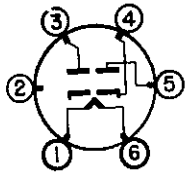
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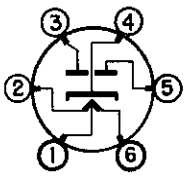
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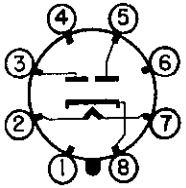
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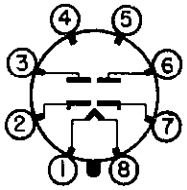
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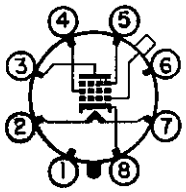
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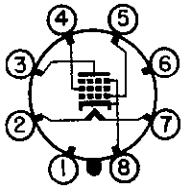
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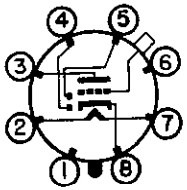
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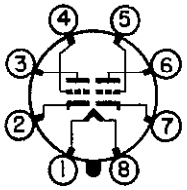
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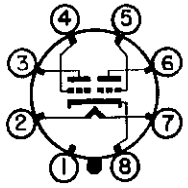
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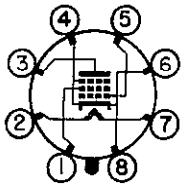
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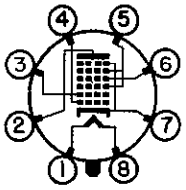
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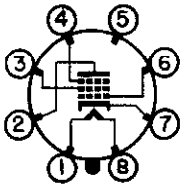
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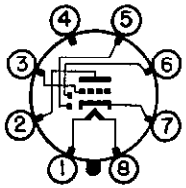
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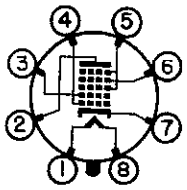
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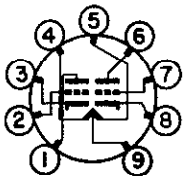
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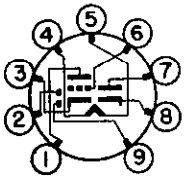
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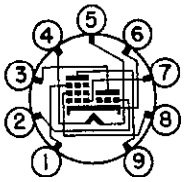
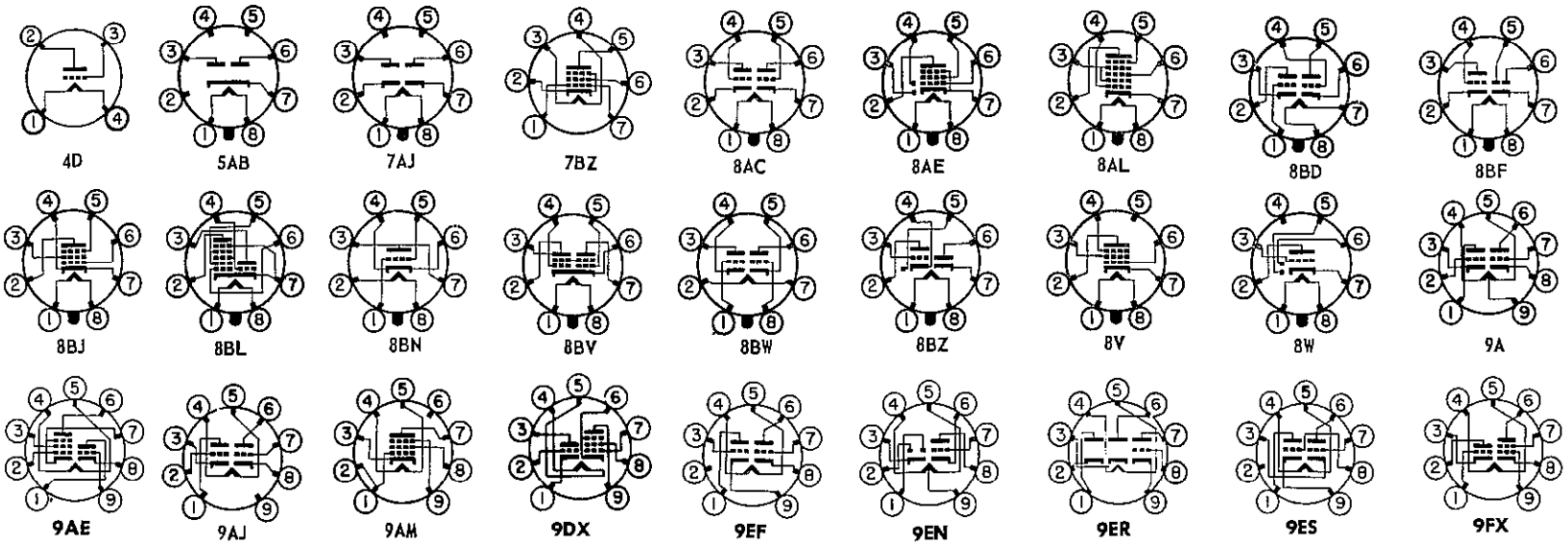

9AK

| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | VOLTS | AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | IN mmfds | OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7C7 | PENTODE | HTR | 6.3 | .15 | 8V-L8 | 9AC | .007* | 5.5* | 6.5* | AMPLIFIER CLASS A | 250 | —3 | 100 | 2.0 | 0.5 | | 2 MEG | 1300 | | | —7 | 7C7 |
| 7E5/1201 | TRIODE | HTR | 6.3 | .150 | 8BN-L8 | 9AC | 1.5 | 3.6 | 2.8 | AMPLIFIER | 180 | —3.0 | | 5.5 | | 36 | 12000 | 3000 | | | | 7E5/1201 |
| 7E6 | DUO-DI TRIODE | HTR | 6.3 | .3 | 8W-L8 | 9AC | 1.5 | 3.0 | 3.4 | AMP CL A | 250 | —9 | | 9.5 | | 16 | 8500 | 1900 | | | | 7E6 |
| 7E7 | DUO-DI PENTODE | HTR | 6.3 | .3 | 8AE-L8 | 9AC | .005* | 4.6* | 4.6* | AMPLIFIER CLASS A | 250<br>100 | —3<br>—1 | 100<br>100 | 7.5<br>10.0 | 1.6<br>2.7 | | .7 MEG<br>.15MEG | 1300<br>1600 | | | —42.5<br>—36.0 | 7E7 |
| 7F7 | TWIN TR | HTR | 6.3 | .3 | 8AC-L8 | 9AC | | | | CL A 1 SECT | 250 | —2 | | 2.3 | | 70 | 44000 | 1600 | | | | 7F7 |
| 7F8 | DOUBLE TRIODE | HTR | 6.3 | 0.3 | 8BW-L8 | 9AB | 1.2 | 2.8 | 1.4 | VOLTAGE AMP | 250 | Rk 500 | | 6.0 | | 48 | | 3300 | | | Each Unit | 7F8 |
| 7G7/1232 | PENTODE | HTR | 6.3 | .45 | 8V-L8 | 9AC | .007* | 9.0* | 7.0* | AMP CL A | 250 | —2 | 100 | 6.0 | 2.0 | | .8 MEG | 4500 | | | —6 | 7G7/1232 |
| 7G8 | DOUBLE TETRODE | HTR | 6.3 | 0.3 | 8BV-L8 | 9AB | 0.15 | 3.4 | 2.6 | VOLTAGE AMP | 250 | —2.5 | 100 | 4.5 | 0.8 | | .225MEG | 2100 | | | Each Unit | 7G8 |
| 7H7 | PENTODE | HTR | 6.3 | .3 | 8V-L8 | 9AC | .007* | 8.0* | 7.0* | AMP CL A | 250<br>100 | —2.5<br>—1 | 150<br>100 | 9.5<br>8.2 | 3.5<br>3.3 | | .8 MEG<br>.25MEG | 3800<br>3800 | | | —19<br>—12 | 7H7 |
| 7J7 | TRI HEX | HTR | 6.3 | .3 | 8BL-L8 | 9AC | .01* | 5.5* | 7.5* | OSC-TRIODE MIXER HEX | 250S<br>250 | .05MEG<br>—3 | 100 | 5.4<br>1.3 | 2.9 | TRIODE PLATE RESISTOR .02 MEG | 1.5MEG | 300C | | | —20 | 7J7 |
| 7K7 | DUO-DIODE | HTR | 6.3 | .3 | 8BF-L8 | 9AC | | | | AMPLIFIER CLASS A | 250 | —2 | | 2.3 | | 70 | 44000 | 1600 | | | | 7K7 |
| 7L7 | PENTODE | HTR | 6.3 | .3 | 8V-L8 | 9AC | .01* | 8.0* | 6.5* | AMP CL A | 250<br>100 | —1.5<br>—1 | 100<br>100 | 4.5<br>5.5 | 1.5<br>2.4 | | 1MEG<br>.1MEG | 3100<br>3000 | | | —5<br>—5 | 7L7 |
| 7N7 | TWIN TRIODE | HTR | 6.3 | .6 | 8AC-L8 | 9AD | 3.0L*<br>3.0R* | 3.4L*<br>2.9R* | 2.0L*<br>2.4R* | CL A 1 SECT | 250<br>90 | —8<br>0 | | 9<br>10 | | 20<br>20 | 7700<br>6700 | 2600<br>3000 | | | | 7N7 |
| 7Q7 | HEPTODE | HTR | 6.3 | .3 | 8AL-L8 | 9AC | .2* | 9.0* | 9.0* | OSC SECT MIXER | OSC<br>250 | GRID RES —.02 MEG<br>—2 | 100 | 3.5 | OSC GRID CUR —.5ma<br>8.5 | | 1.0MEG | 550C | | | —35 | 7Q7 |
| 7R7 | DUO-DI PENTODE | HTR | 6.3 | .3 | 8AE-L8 | 9AC | .004 | 5.6 | 5.3 | AMP CL A | 250<br>100 | —1<br>—1 | 100<br>100 | 5.7<br>5.5 | 1.7<br>2.0 | | 1.0MEG<br>.35MEG | 3200<br>3000 | | | —20<br>—16 | 7R7 |
| 7S7 | TRI HEX | HTR | 6.3 | 0.30 | 8BL-L8 | 9AC | 0.04 | 5.5 | 9.0 | OSC-TRIODE MIXER HEX | 250S<br>250 | .05MEG<br>—2 | 100 | 5.0<br>1.7 | 2.2 | | TRIODE<br>2 MEG | PLATE RESISTOR .02 MEG<br>600C | | | —21 | 7S7 |
| 7T7 | PENTODE | HTR | 6.3 | 0.3 | 8V-L8 | 9AC | 0.005 | 7.5 | 5.5 | AMP CL A | 250<br>100 | —1<br>—1 | 150<br>100 | 10.8<br>5.3 | 4.1<br>2.1 | | 0.9MEG<br>0.3MEG | 4900<br>4000 | | | —5.5<br>—4.0 | 7T7 |
| 7V7 | PENTODE | HTR | 6.3 | 0.45 | 8V-L8 | 9AC | 0.004 | 9.5 | 6.5 | HIGH FREQ AMPLIFIER | 300 | —2 | 150 | 9.6 | 3.9 | | .3MEG | 5800 | | | —6 | 7V7 |
| 7W7 | PENTODE | HTR | 6.3 | 0.45 | 8BJ-L8 | 9AC | 0.0025 | 9.5 | 7.0 | HIGH FREQ AMPLIFIER | 300<br>300 | —2<br>—2 | 150<br>300 THRU .04 MEG (OTHER VALUES SAME AS ABOVE) | 10.0 | 3.9 | | .3MEG | 5800 | | | —6<br>—14 | 7W7 |
| 7X7 | DOUBLE DI-TRI | HTR | 6.3 | 0.3 | 8BZ-L8 | 9AD | | | | DET-AMP | 250 | —1 | | 1.9 | | 100 | | 1500 | | | | 7X7 |
| 7X6 | DBLE-DI | HTR | 6.3 | 1.2 | 7AJ-L8 | 9AD | | | | FW RECTIFIER | MAX PEAK INVERSE = 700 V; MAX Io = 150ma | | | | | | | | | | | 7X6 |
| 7Y4 | TWIN DI | HTR | 6.3 | .5 | 5AB-L8 | 9AC | | | | FW RECTIFIER | 325 RMS MAX COND IN 60 DC MAX TUBE DROP 20v AT 60ma DC<br>450 RMS MAX CHOKE IN 60 DC MAX | | | | | | | | | | | 7Y4 |
| 7Z4 | TWIN DI | HTR | 6.3 | 0.90 | 5AB-L8 | 9AD | | | | FW RECTIFIER | 325 RMS MAX COND IN 100 DC MAX TUBE DROP 40v AT 60ma DC<br>450 RMS MAX CHOKE IN 100 DC MAX | | | | | | | | | | | 7Z4 |
| 8AU8 | TRIODE PENTODE | HTR | 8.4 | 0.45 | 9DX-MB9 | 5BC | 2.2<br>0.046 | 2.8<br>7.0 | 0.32<br>2.6 | AMPLIFIER | 150<br>200 | Rk 150<br>Rk 82 | 125 | 8.5<br>15 | 3.4 | | 8200<br>150000 | | | | —6.5<br>—8 | 8AU8 |
| 8AW8A | TRIODE PENTODE | HTR | 8.4 | 0.45 | 9DX-MB9 | 5AD | 2.2<br>0.04 | 3.2<br>10.0 | 0.32<br>3.6 | SYNCH SEP AMPLIFIER | 200 | —2 | 150 | 4.0<br>13.0 | 3.5 | 70 | 0.4MEG | 4000<br>9000 | | | —5<br>—10 | 8AW8A |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | VOLTS | AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | IN mmfds | OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8BA8<br>8BA8A | TRIODE<br>PENTODE | HTR | 8.4 | 0.45 | 9DX-MB9 | 5BC<br>5BC | 2.2<br>0.04 | 2.5<br>10.0 | 0.4<br>3.6 | AMP CL A | 200<br>200 | —8 | 150 | 8.0<br>13.0 | 3.5 | 18 | 0.4MEG | 2700<br>9000 | | | —16<br>—10 | 8BA8<br>8BA8A |
| 8BN8 | DBLE DI TRIODE | HTR | 8.4 | 0.45 | 9ER-MB9 | 5AD | 2.5 | 3.6 | 0.32 | AMPLIFIER | 250 | —3 | | 1.6 | | 70 | 28000 | 2500 | | | —5.5 | 8BN8 |
| 8CG7 | TWIN TRIODE | HTR | 8.4 | 0.45 | 9AJ-MB9 | 5AD | 4.0 | 2.3 | 2.2 | OSCILLATOR | 250 | —8 | | 9 | | 20 | 7700 | 2600 | | | —18 | 8CG7 |
| 8CM7 | DOUBLE TRIODE | HTR | 8.4 | 0.45 | 9ES-MB9 | 5AD | 3 | 3.5 | 0.4 | OSCILLATOR<br>AMPLIFIER | 200<br>250 | —7<br>—8 | | | | 21 | 10500 | 2000<br>4400 | | | | 8CM7 |
| 8CN7 | DBLE DI TRIODE | HTR | 8.4 | 0.225 | 9EN-MB9 | 5BB | 1.8 | 1.5 | 0.5 | DETECTOR | 100<br>250 | —1.0<br>—3.0 | | 0.8<br>1.0 | | 70 | 54000<br>58000 | 1300<br>1200 | | | | 8CN7 |
| 8CS7 | TWIN TRIODE | HTR | 8.4 | 0.45 | 9EF-MB9 | 5AD | 2.6 | 1.8 | 0.5 | OSCILLATOR<br>AMPLIFIER | 250 | —8.5<br>—10.5 | | 10.5<br>19.0 | | 17.0<br>15.5 | 7700<br>3450 | 2200<br>4500 | | | —22 | 8CS7 |
| 8SN7GTB | DOUBLE TRIODE | HTR | 8.4 | 0.45 | 8BD-0S8 | 9DB | 4.0 | 3.0 | 1.2 | VERTICAL<br>OSC-AMP | 90<br>250 | 0<br>—8 | | 10<br>9 | | 20<br>20 | 6700<br>7700 | 3000<br>2600 | | | —18 | 8SN7GTB |
| 9AU7 | TWIN TRIODE | HTR | 9.4 | 0.225 | 9A-MB9 | 5BB | 1.5 | 1.6 | 0.4 | AMPLIFIER | 250 | —8.5 | | 10.5 | | 17 | 7700 | 2200 | | | —24 | 9AU7 |
| 9BM5 | BM PENT | HTR | 9.5 | .3 | 7BZ-MB7 | 5AD | .5 | 8.0 | 5.5 | POWER AMP | 250 | —6 | 250 | 30 | 3 | | 60000 | 7000 | 3.5 | 7000 | | 9BM5 |
| 9BW6 | BM PENT | HTR | 9.45 | .3 | 9AM-MB9 | 5BC | | | | POWER AMP | 250 | —13 | 250 | 34 | 2.2 | | 77000 | 3750 | 5.5 | 8500 | | 9BW6 |
| 9CL8 | TRIODE TETRODE | HTR | 9.5 | 0.3 | 9FX-MB9 | 5BB | 1.8<br>0.028 | 2.7<br>5.0 | 0.4<br>2.0 | OSCILLATOR<br>MIXER | 125 | —1.0 | 125 | 15<br>12 | 4.0 | 40 | 0.1MEG | 8000<br>5800 | | | —9<br>—10 | 9CL8 |
| 9U8A | TRIODE PENTODE | HTR | 9.45 | 0.3 | 9AE-MB9 | 5BB | 1.8<br>0.01 | 2.5<br>5.0 | 1.0<br>2.6 | TRIODE SECT<br>PENTODE SECT | 150<br>250 | Rk 56<br>Rk 68 | | 18<br>10 | 3.5 | 40 | 0.4MEG | 8500<br>5200 | | | —12<br>—10 | 9U8A |
| 10 | TRIODE | FIL | 7.5 | 1.25 | 4D-SM4 | 16AA | 7 | 4 | 3 | POWER AMP<br>CLASS A | 425<br>350 | —39<br>—22.0 | | 18<br>10 | | 8<br>8 | 5000<br>6000 | 1600<br>1330 | 1.6<br>0.4 | 10200<br>13000 | | 10 |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES



RAYTHEON

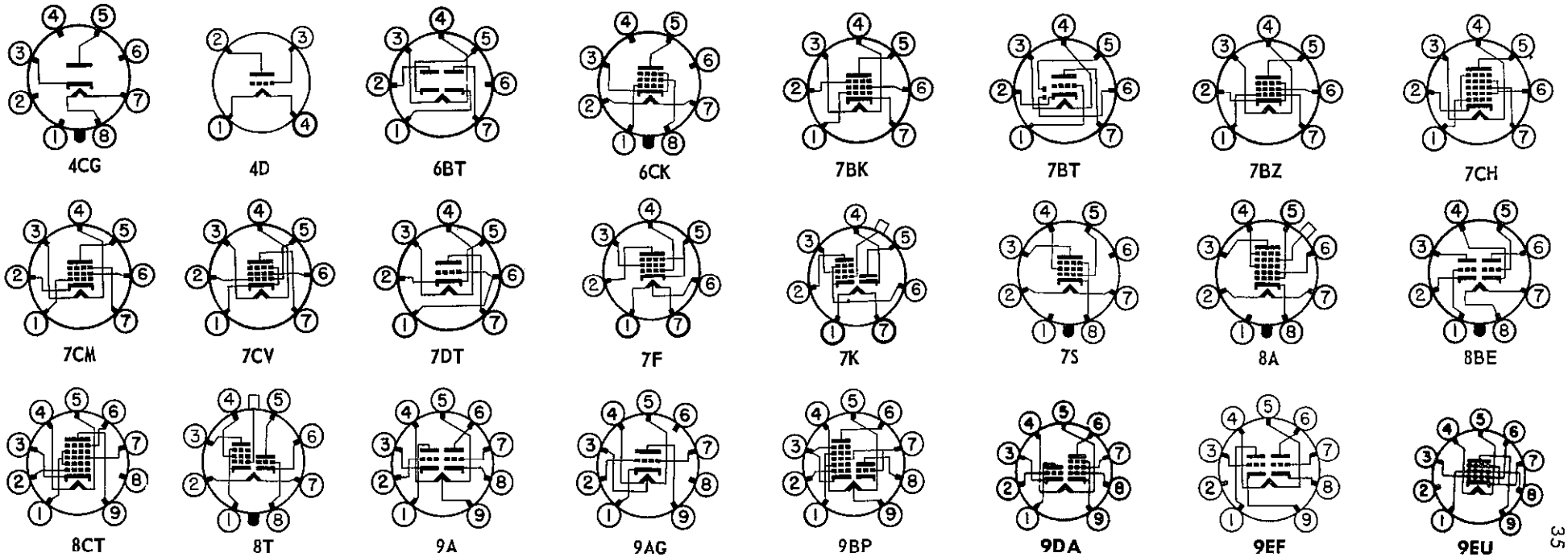
RAYTHEON

| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | CATHODE HTR OR FIL VOLTS | CATHODE HTR OR FIL AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | CAPACITIES IN mmfds | CAPACITIES OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10CL8 | TRIODE<br>PENTODE | HTR | 10.5 | 0.3 | 9DA-MB9 | 5BB | 1.6<br>0.04 | 2.4<br>7.0 | 0.20<br>2.2 | OSCILLATOR<br>AMPLIFIER | 250<br>135 | Rk 100 | 13.5 | 7.3<br>11.5 | 3.2 | 53 | 0.2MEG | 4400<br>8000 | | | —10<br>—6 | 10CL8 |
| 10DA7 | DOUBLE<br>TRIODE | HTR | 10.5 | 0.6 | 9EF-MB9 | 5BC | 2.3<br>6.9 | 2.0<br>5.5 | 0.415<br>0.82 | OSCILLATOR<br>AMPLIFIER | 250<br>150 | —8<br>—17.5 | | 9.0<br>40 | | 20<br>6.3 | 7700<br>1100 | 2600<br>5700 | | | —42 | 10DA7 |
| 12A | TRIODE | FIL | 5.0 | .25 | 4D-SM4B | 14BA | 7.5 | 4.0 | 3.0 | AMPLIFIER<br>CLASS A | 180<br>135 | —13.5<br>—9 | | 7.7<br>6.2 | | 8.5<br>8.5 | 4700<br>5100 | 1800<br>1650 | .285<br>.130 | 10650<br>9000 | | 12A |
| 12A4 | TRIODE | HTR | 12.6# | .3 | 9AG-MB9 | 5BC | 4.9 | 6.7 | 3.8 | VERT. AMP | MAX PEAK POS. PLATE = 1000 V; MAX DC CATHODE CURR. = 30ma<br>MAX PLATE DISSIPATION = 6.5 watts | | | | | | | | | | | 12A4 |
| 12A5 | PENTODE | HTR | 12.6# | .3 | 7F-SS7 | 12BA | | | | POWER AMP<br>CLASS A | 180<br>100 | —25<br>—15 | 180<br>100 | 45<br>17 | 8<br>3 | | 35000<br>50000 | 2400<br>1700 | 3.4<br>.08 | 3300<br>4500 | | 12A5 |
| 12A6GT | BEAM<br>PWR AMP | HTR | 12.6 | 0.15 | 7S-OGT7 | 9DB | 0.6 | 9.0 | 9.0 | AMPLIFIER<br>CLASS A | 250 | —12.5 | 250 | 30 | 3.5 | | | 3000 | 3.0 | 7500 | | 12A6GT |
| 12A7 | DIODE<br>PENTODE | HTR | 12.6 | .3 | 7K-SS7 | 12DA | | | | H W RECT<br>AMP CL A | 125 RMS MAX<br>135 | —13.5 | 135 | 30 DC MAX<br>9 | 2.5 | 100 | TUBE DROP 15v AT 60ma DC<br>.1 MEG 975 | | .55 13500 | | | 12A7 |
| 12A8GT | HEPTODE | HTR | 12.6 | .15 | 8A-OW8 | 9CA | 2.6* | 9.5* | 12* | OSC SECT<br><br>MIXER | 250S<br>100<br>250<br>100 | .05MEG<br>.05MEG<br>—3<br>—1.5 | <br><br>100<br>50 | 4.0<br>2.0<br>3.5<br>1.1 | <br><br>2.7<br>1.3 | | GRID #2 RES .02 MEG<br><br>.36MEG<br>.6 MEG | <br><br>550C<br>360C | | | <br><br>—35<br>—20 | 12A8GT |
| 12AB5 | BM PENT | HTR | 12.6 | 0.225 | 9EU-MB9 | 5AD | 0.7 | 8.0 | 8.5 | POWER AMP | 250 | —12.5 | 250 | 47 | 7 | | 50K | 4100 | | 5000 | | 12AB5 |
| 12AC6 | PENTODE | HTR | 12.6 | 0.15 | 7BK-MB7 | 5AC | 0.005 | 4.3 | 5.0 | AMPLIFIER | 12.6 | 0 | 12.6 | 550 | 28 | | 0.5MEG | 730 | | | —5.2 | 12AC6 |
| 12AD6 | HEPTODE | HTR | 12.6 | 0.15 | 7CH-MB7 | 5AC | 0.25 | 8.0 | 5.5 | OSCILLATOR<br>MIXER | 12.6 | 0 | 12.6 | | | 9 | | 3800 | | | —4.0 | 12AD6 |
| 12AD7 | DBLE TRI | HTR | 12.6 | 0.225 | 9A-MB9 | 5BB | 1.8 | 1.6 | 0.45 | PREAMP | 250 | —2 | | 1.25 | | 100 | 62500 | 1600 | | | | 12AD7 |
| 12AE6 | DI TRI | HTR | 12.6 | 0.15 | 7DT-MB7 | 5AC | 2.0 | 1.8 | 1.1 | DET-AMP | 12.6 | 0 | 12.6 | 750 | | 15 | 15000 | 1000 | | | | 12AE6 |
| 12AF6 | PENTODE | HTR | 12.6 | 0.15 | 7BK-MB7 | 5AC | 0.006 | 5.5 | 4.8 | RF AMPLIFIER | 12.6 | 0 | 12.6 | 0.8 | 0.3 | | 0.3MEG | 1250 | | | —2.7 | 12AF6 |
| 12AG6 | HEPTODE | HTR | 12.6 | 0.15 | 7CH-MB7 | 5AC | 0.065 | 7.5 | 5.5 | CONVERTER | 12.6 | 0 | 12.6 | 0.55 | 1.4 | | | 300 | | | —2.0 | 12AG6 |
| 12AH7GT | TWIN TR | HTR | 12.6 | .150 | 8BE-OGT8 | 9BC | 3.0L<br>2.2R | 2.9L<br>3.2R | 2.6L<br>3.0R | CL A 1 SECT | 250<br>100 | —9<br>—3.6 | | 12<br>3.7 | | 16<br>16 | 6600<br>10300 | 2400<br>1550 | | | —30.0<br>—8.5 | 12AH7GT |
| 12AH8 | TRIODE<br>HEPTODE | HTR | 12.6# | .15 | 9BP-MB9 | 5BC | | 1.7<br>5.0 | .7<br>8.0 | TRIODE SECT<br>HEPTODE SECT | 100<br>250 | .047MEG<br>—3 | <br>100 | <br>2.6 | <br>4.4 | | | <br>550C | | | <br>—22 | 12AH8 |
| 12AL5 | DOUBLE<br>DIODE | HTR | 12.6 | 0.15 | 6BT-MB7 | 5AA | | | 3.2 | DISCRIMINATOR | MAX PEAK INVERSE = 330 volts, MAX Io = 9 madc PER PLATE | | | | | | | | | | | 12AL5 |
| 12AQ5 | BM PENT | HTR | 12.6 | .225 | 7BZ-MB7 | 5AD | .35 | 8.3 | 8.2 | POWER AMP | 180<br>250 | —8.5<br>—12.5 | 180<br>250 | 29<br>45 | 3<br>4.5 | | 58000<br>52000 | 3700<br>4100 | 2.0<br>4.5 | 5500<br>5000 | | 12AQ5 |
| 12AS5 | BM PENT | HTR | 12.6 | .4 | 7CV-MB7 | 5AD | .6 | 12 | 6.2 | POWER AMP | 150 | —8.5 | 110 | 35 | 2 | | | 5600 | 2.2 | 4500 | | 12AS5 |
| 12AT6 | DOUBLE<br>DI-TRI | HTR | 12.6 | 0.15 | 7BT-MB7 | 5AC | 2.1 | 2.3 | 1.1 | DET-AMP | 250<br>100 | —3<br>—1 | | 1.0<br>0.8 | | 70<br>70 | | 1200<br>1300 | | | | 12AT6 |
| 12AT7 | DOUBLE<br>TRIODE | HTR | 12.6# | 0.15 | 9A-MB9 | 5BB | 1.45 | 2.5 | 0.45 | VOLTAGE AMP | 250<br>100 | —2<br>—1 | | 10<br>3.7 | | 55<br>54 | | 5500<br>4000 | | | —12<br>—6 | 12AT7 |
| 12AU6 | PENTODE | HTR | 12.6 | 0.15 | 7BK-MB7 | 5AC | .0035 | 5.5 | 5.0 | VOLTAGE AMP | 250<br>100 | —1<br>—1 | 150<br>100 | 10.8<br>5.2 | 4.3<br>2.0 | | 1 MEG<br>0.5MEG | 5200<br>3900 | | | —6.2<br>—4.2 | 12AU6 |
| 12AU7<br><br>12AU7A | DOUBLE<br>TRIODE | HTR | 12.6# | 0.15 | 9A-MB9 | 5BB<br><br>5BB | 1.5 | 1.6 | 0.5 | VOLTAGE AMP | 250<br>100 | —8.5<br>0 | | 10.5<br>11.8 | | 17<br>19.5 | | 2200<br>3100 | | | | 12AU7<br><br>12AU7A |
| 12AV5GA | BM PENT | HTR | 12.6 | 0.6 | 6CK-OM6 | 11AB | 0.5 | 14 | 7.0 | AMPLIFIER | 250 | —22.5 | 150 | 57 | 2.1 | | 14500 | 5900 | | | —43 | 12AV5GA |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | CATHODE HTR OR FIL VOLTS | CATHODE HTR OR FIL AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | CAPACITIES IN mmfds | CAPACITIES OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12AV6 | DOUBLE DI-TRI | HTR | 12.6 | 0.15 | 7BT-MB7 | 5AC | 2.1 | 2.3 | 0.9 | DET-AMP | 250<br>100 | —2<br>—1 | | 1.2<br>0.5 | | 100<br>100 | | 1600<br>1250 | | | | 12AV6 |
| 12AV7 | TWIN TRIODE | HTR | 12.6# | .225 | 9A-MB9 | 5BB | 1.9 | 3.1 | .5 | AMP CL A | 100<br>150 | Rk 120<br>Rk 56 | | 9<br>18 | | 37<br>41 | | 6100<br>8500 | | | —9<br>—12 | 12AV7 |
| 12AW6 | PENTODE | HTR | 12.6 | 0.15 | 7CM-MB7 | 5AC | 0.025 | 6.5 | 1.5 | VOLTAGE AMP | 250<br>100 | Rk 200<br>Rk 100 | 150<br>100 | 7.0<br>5.5 | 2.0<br>1.6 | | 0.8MEG<br>0.3MEG | 5000<br>4750 | | | —8<br>—5 | 12AW6 |
| 12AX4GT<br>12AX4GTA | DIODE | HTR | 12.6 | .6 | 4CG-OS6 | 9DB<br>9DB | | | | DAMPER | MAX PEAK INVERSE = 4000 V; MAX Io = 125ma | | | | | | | | | | | 12AX4GT<br>12AX4GTA |
| 12AX7 | DOUBLE TRIODE | HTR | 12.6# | 0.15 | 9A-MB9 | 5BB | 1.7 | 1.6 | 0.46 | VOLTAGE AMP | 250<br>100 | —2<br>—1 | | 1.2<br>0.5 | | 100<br>100 | | 1600<br>1250 | | | | 12AX7 |
| 12AY7 | DOUBLE TRIODE | HTR | 12.6# | 0.15 | 9A-MB9 | 5BB | 1.3 | 1.3 | 0.6 | VOLTAGE AMP | 250 | —4 | | 3.0 | | 40 | | 1750 | | | | 12AY7 |
| 12AZ7 | TWIN TRIODE | HTR | 12.6# | .225 | 9A-MB9 | 5BB | 1.9 | 3.1 | .5 | AMP CL A | 100<br>250 | Rk 100<br>Rk 200 | | 3.7<br>10 | | 60<br>60 | | 4000<br>5500 | | | —5<br>—12 | 12AZ7 |
| 12B4<br>12B4A | TRIODE | HTR | 12.6# | .3 | 9AG-MB9 | 5BC<br>5BC | 4.3 | 6.4 | 7.0 | VERT. AMP | MAX PEAK POS. PULSE PLATE = 1000 V; MAX PLATE DISS. = 6 WATTS | | | | | | | | | | | 12B4<br>12B4A |
| 12B8GT | TRIODE<br>PENTODE | HTR | 12.6 | .3 | 8T-OGT8 | 9EB | 2.3<br>0.15 | 5.0<br>5.2 | 6.3<br>9.6 | AMP TRIODE<br>CLASS A<br>AMP PENT<br>CLASS A | 100<br>90<br>100<br>90 | —1<br>0<br>—3<br>—3 | <br><br>100<br>90 | 0.6<br>2.8<br>8<br>7 | <br><br>2<br>2 | 110<br>90<br>360<br>360 | 73000<br>37000<br>.17MEG<br>.20MEG | 1500<br>2400<br>2100<br>1800 | | | —2.5<br>—2.5<br><br>—42.5 | 12B8GT |
| 12BA6 | PENTODE | HTR | 12.6 | 0.15 | 7BK-MB7 | 5AC | .0035 | 5.5 | 5.0 | VOLTAGE AMP | 250<br>100 | Rk 68<br>Rk 68 | 100<br>100 | 11.0<br>10.8 | 4.2<br>4.4 | | 1.5MEG<br>0.25MEG | 4400<br>4300 | | | —20<br>—20 | 12BA6 |
| 12BA7 | PENTA-GRID | HTR | 12.6 | 0.15 | 8CT-MB9 | 5BC | 0.19 | 9.5 | 8.3 | CONVERTER | 250<br>100 | —1<br>—1 | 100<br>100 | 3.8<br>3.6 | 10<br>10.2 | | 1 MEG<br>0.5MEG | 950C<br>900C | | | —20<br>—20 | 12BA7 |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

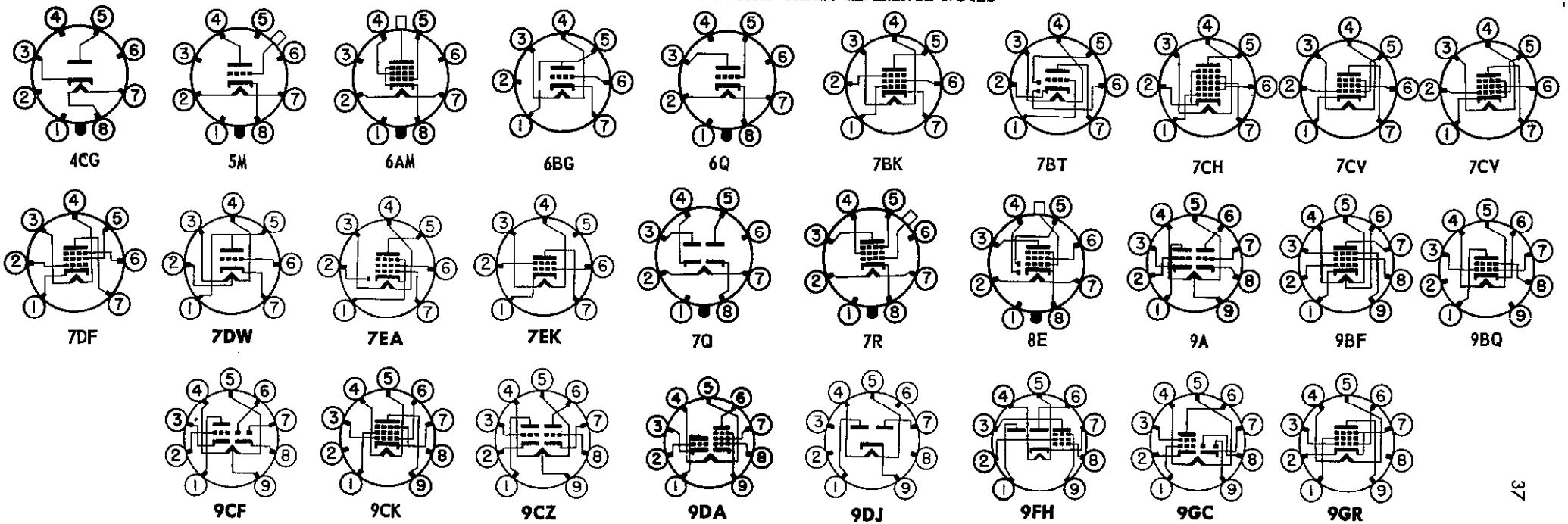


| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | VOLTS | AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | IN mmfds | OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12BD6 | PENTODE | HTR | 12.6 | 0.15 | 7BK-MB7 | 5AC | 0.004 | 4.3 | 5.0 | VOLTAGE AMP | 250<br>100 | —3<br>—1 | 100<br>100 | 9<br>13 | 3<br>5 | | 0.8MEG<br>0.15MEG | 2000<br>2550 | | | —35<br>—35 | 12BD6 |
| 12BE6 | PENTA-GRID | HTR | 12.6 | 0.15 | 7CH-MB7 | 5AC | 0.3 | 7.2 | 8.6 | CONVERTER | 250<br>100 | —1.5<br>—1.5 | 100<br>100 | 3<br>2.8 | 7.1<br>7.3 | | 1 MEG<br>0.5MEG | 475C<br>455C | | | —30<br>—30 | 12BE6 |
| 12BF6 | DOUBLE-DI TRI | HTR | 12.6 | 0.15 | 7BT-MB7 | 5AC | 2 | 1.8 | 1.4 | DET-AMP | 250 | —9 | | 9.5 | | 16 | | 1900 | | | | 12BF6 |
| 12BH7<br>12BH7A | TWIN TRIODE | HTR | 12.6# | .3 | 9A-MB9 | 5BC<br>5BC | 2.4 | 3.3 | .8 | VERT. AMP | MAX PEAK POS. PULSE PLATE = 1500 V; MAX PLATE DISS. = 3.5 WATTS | | | | | | | | | | | 12BH7<br>12BH7A |
| 12BK5 | BM PENT | HTR | 12.6 | 0.6 | 9BQ-MB9 | 5BC | 0.6 | 13 | 5.0 | POWER AMP | 250 | —5.0 | 250 | 35 | 3.5 | | 0.1MEG | 8500 | 3.5 | 6500 | | 12BK5 |
| 12BK6 | DBLE DI TRIODE | HTR | 12.6 | .15 | 7BT-MB7 | 5AD | | | | DET.-AMP | 100<br>250 | —1<br>—2 | | .5<br>1.2 | | 100<br>100 | | 1250<br>1600 | | | | 12BK6 |
| 12BN6 | GATED BM | HTR | 12.6 | .15 | 7DF-MB7 | 5AD | | | | DISCRIMINATOR | 80 | Input sig. center freq. = 10.7 Mc; Freq. Dev. = ± 75 kc | | | | | | | | | | 12BN6 |
| 12BQ6GA<br>12BQ6GTA | BEAM PENTODE | HTR | 12.6 | 0.6 | 6AM-OGT6 | 11BB<br>9EC | 0.6 | 15 | 7.5 | POWER AMPLIFIER | 250 | —22.5 | 150 | 55 | 2.1 | | 20000 | 5500 | | | —46 | 12BQ6GA<br>12BQ6GTA |
| 12BQ6GTB | | | | | | 9EC | | | | | | | | | | | 18000 | 6000 | | | | 12BQ6GTB |
| 12BR7 | DBLE DI TRIODE | HTR | 12.6 | 0.225 | 9CF-MB9 | 5BB | 1.9 | 2.8 | 1.0 | CL A AMP | 250 | Rk 200 | | 10 | | 60 | 10900 | 5500 | | | —12 | 12BR7 |
| 12BT6 | DBLE DI TRIODE | HTR | 12.6 | .15 | 7BT-MB7 | 5AD | | | | DET.-AMP | 100<br>250 | —1<br>—3 | | .8<br>1.0 | | 70<br>70 | | 1300<br>1200 | | | | 12BT6 |
| 12BU6 | DBLE DI TRIODE | HTR | 12.6 | .15 | 7BT-MB7 | 5AD | | | | DET.-AMP | 250 | —9 | | 9.5 | | 16 | | 1900 | .300 | 10000 | | 12BU6 |
| 12BV7 | PENTODE | HTR | 12.6 | 6.3 | 9BF-MB9 | 5BC | 0.055 | 11.0 | 3.0 | AMPLIFIER | 250 | Rk 68 | 150 | 27 | 6.0 | 10000 | 85000 | 13000 | | | —12 | 12BV7 |
| 12BW4 | DBLE DI | HTR | 12.6 | 0.45 | 9DJ-MB9 | 5AD | | | | FW RECTIFIER | MAX PEAK INVERSE = 1275 volts MAX Io = 35 | | | | | | | | | | | 12BW4 |
| 12BY7<br>12BY7A | PENTODE | HTR | 12.6# | .3 | 9BF-MB9 | 5BC<br>5BC | .055 | 11.1 | 3 | VIDEO AMP | 250 | Rk 68 | 150 | 25 | 6 | | 90000 | 12000 | | | —10 | 12BY7<br>12BY7A |
| 12BZ7 | TWIN TRIODE | HTR | 12.6# | .3 | 9A-MB9 | 5BC | 2.5 | 6.5 | .7 | AMP CL A | 250 | —2 | | 2.5 | | | 100 | 3200 | | | | 12BZ7 |
| 12C5 | BM PENT | HTR | 12.6 | 0.6 | 7CV-MB7 | 5AD | 0.5 | 13 | 6.5 | POWER AMP | 110 | —7.5 | 110 | 50 | 8.5 | | 14000 | 7500 | 1.9 | 2500 | | 12C5 |
| 12C8 | DUO-DI PENTODE | HTR | 12.6 | .15 | 8E-OW7 | 8FA | .005 | 6 | 9 | AMPLIFIER CLASS A | 250<br>100 | —3<br>—3 | 125<br>100 | 10<br>5.8 | 2.3<br>1.7 | | .6 MEG<br>.3 MEG | 1325<br>950 | | | —21<br>—17 | 12C8 |
| 12CA5 | BM PENT | HTR | 12.6 | 0.6 | 7CV-MB7 | 5AD | 0.5 | 15 | 9 | AF AMPLIFIER | 125 | —4.5 | 125 | 36 | 4.0 | | 15000 | 9200 | | 4500 | | 12CA5 |
| 12CM6 | BM PENT | HTR | 12.6 | .225 | 9CK-MB9 | 5BC | .7 | 8 | 8.5 | VERT. AMP | MAX PEAK POS. PLATE = 2000 V; MAX PEAK Ik = 120ma<br>MAX PLATE DISS. = 8 WATTS | | | | | | | | | | | 12CM6 |
| 12CN5 | PENTODE | HTR | 12.6 | 0.45 | 7CV-MB7 | 5AD | 0.25 | | | IF AMPLIFIER | 12.6 | 0 | 12.6 | 4.5 | 3.5 | | 40000 | 3800 | | | | 12CN5 |
| 12CR6 | DI PENT | HTR | 12.6 | 0.15 | 7EA-MB7 | 5AC | | | | DET-AMP | 250 | —2 | 100 | 9.6 | 2.6 | | 0.8MEG | 2200 | | | —32 | 12CR6 |
| 12CS5 | BM PENT | HTR | 12.6 | 0.6 | 9CK-MB9 | 5BC | 0.5 | 15 | 9 | AMPLIFIER | 110 | —7.5 | 110 | 50 | 10 | | 13000 | 8000 | | 2000 | | 12CS5 |
| 12CS6 | HEPTODE | HTR | 12.6 | 0.15 | 7CH-MB7 | 5AC | 0.05 | 5.5 | 7.5 | CL A AMP | 100 | —1.0 | 30 | 0.75 | 1.1 | | 1MEG | 950 | | | —2.5 | 12CS6 |
| 12CT8 | TRIODE PENTODE | HTR | 12.6 | 0.3 | 9DA-MB9 | 5BB | 2.2<br>0.044 | 2.4<br>7.5 | 0.19<br>2.4 | AMPLIFIER | 150<br>200 | Rk150 | 125 | 9.0<br>15.0 | 3.4 | 40 | 0.15MEG | 4900<br>7000 | | | —6.5<br>—8 | 12CT8 |
| 12CU5 | BM PENT | HTR | 12.6 | 0.6 | 7CV-MB7 | 5AD | 0.7 | 13.2 | 8.6 | POWER AMPLIFIER | 120 | —8 | 110 | 50 | 8.5 | | 10000 | 7500 | | 2500 | | 12CU5 |
| 12D4 | DIODE | HTR | 12.6 | 0.6 | 4CG-OGT8 | 9DB | | 6.0 | 8.0 | HW RECTIFIER | MAX PEAK INVERSE = 4400 volts MAX Io = 155 ma | | | | | | | | | | | 12D4 |
| 12DB5 | BM PENT | HTR | 12.6 | 0.6 | 9GR-MB9 | 5BC | 0.5 | 15 | 9 | POWER AMP | 110 | —7.5 | 110 | 50 | 10 | | 13000 | 8000 | | 2000 | | 12DB5 |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | CATHODE HTR OR FIL VOLTS | CATHODE HTR OR FIL AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | CAPACITIES IN mmfds | CAPACITIES OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12DQ6A | BM PENT | HTR | 12.6 | 0.6 | 6AM-OM7 | 12JC | 0.55 | 15 | 7 | POWER AMP | 250 | —22.5 | 150 | 75 | 2.4 | | 20000 | 6600 | | | —46 | 12DQ6A |
| 12E5GT | TRIODE | HTR | 12.6 | 0.15 | 6Q-OGT6 | 9BC | 2.8 | 3.8 | 2.6 | AMP CL A | 250<br>100 | —13.5<br>—5 | | 5.0<br>2.5 | | 13.8<br>13.8 | 9500<br>12000 | 1450<br>1150 | | | | 12E5GT |
| 12F5GT | TRIODE | HTR | 12.6 | .15 | 5M-OW5 | 9EA | 2.0* | 6* | 12* | AMPLIFIER CLASS A | 250<br>100 | —2<br>—1 | | 0.9<br>0.4 | | 100<br>100 | 66000<br>85000 | 1500<br>1150 | | | | 12F5GT |
| 12F8 | DBLE DI PENTODE | HTR | 12.6 | 0.15 | 9FH-MB9 | 5BB | 4.5 | 3.0 | 0.06 | VOLTAGE AMP | 12.6 | 0 | 12.6 | 1.0 | 0.38 | | 0.3MEG | 1000 | | | —5 | 12F8 |
| 12G4 | TRIODE | HTR | 12.6# | .15 | 6BG-MB7 | 5AD | 3.4 | 2.4 | .9 | AMP CL A | 90<br>250 | 0<br>—8 | | 10<br>9 | | | 20<br>20 | 3000<br>2600 | | | —7<br>—18 | 12G4 |
| 12G8 | DBLE TRI | HTR | 12.6 | 0.4 | 9CZ-MB9 | 5BC | | | | AF DRIVER | 12.6 | 0 | | | | 22 | 8500 | 2600 | | 2000 | | 12G8 |
| 12H4 | TRIODE | HTR | 12.6 | 0.15 | 7DW-MB7 | 5AC | 3.4 | 2.4 | 0.9 | AMPLIFIER | 250 | —8 | | 9 | | 20 | | 2600 | | | —18 | 12H4 |
| 12H6 | DUO DI | HTR | 12.6 | 0.15 | 7Q-OW7 | 8BA | 3.0 | 3.4 | 0.10 | DETECTOR | 150 MAX | | | 8 MAX EACH DIODE | | | | | | | | 12H6 |
| 12J5GT | TRIODE | HTR | 12.6 | .15 | 6Q-OW6 | 9DB | 3.8* | 4.2* | 5.0* | AMPLIFIER CLASS A | 250<br>90 | —8<br>0 | | 9.0<br>10.0 | | 20<br>20 | 7700<br>6700 | 2600<br>3000 | | | | 12J5GT |
| 12J8 | DUO DIODE TETRODE | HTR | 12.6 | 0.35 | 9GC-MB9 | 5BB | | | | AMPLIFIER | 12.6 | 0 | 12.6 | 14 | 3 | | 4000 | 5400 | | 2000 | | 12J8 |
| 12K5 | TETRODE | HTR | 12.6 | 0.45 | 7EK-MB7 | 5AD | | | | POWER AMP DRIVER | 12.6 | —2.0 | 12.6 | 85 | 35 | | 100000 | | | 800 | | 12K5 |
| 12J7GT | PENTODE | HTR | 12.6 | .15 | 7R-OW7 | 9CA | .005* | 4.6* | 12* | AMP CL A<br>PENT CONN<br>TRI CONN | 250<br>100<br>250 | —3<br>—3<br>—8 | 100<br>100 | 2.0<br>2.0<br>6.5 | 0.5<br>0.5 | <br><br>20 | 1.5MEG<br>1.0MEG<br>10500 | 1225<br>1185<br>1900 | | | —7<br>—7 | 12J7GT |
| 12K7GT | PENTODE | HTR | 12.6 | .15 | 7R-OW7 | 9CA | | | | AMPLIFIER CLASS A | 250<br>250<br>100 | —3<br>—3<br>—1 | 125<br>100<br>100 | 10.5<br>7.0<br>9.5 | 2.6<br>1.7<br>2.7 | | .6 MEG<br>.8 MEG<br>.15MEG | 1650<br>1450<br>1650 | | | —52.5<br>—42.5<br>—38.5 | 12K7GT |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES



| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | CATHODE HTR OR FIL VOLTS | CATHODE HTR OR FIL AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | CAPACITIES IN mmfds | CAPACITIES OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12K8GT | TRIODE<br>HEXODE | HTR | 12.6 | .15 | 8K-OW8 | 9CB | .08* | 4.6* | 4.8* | OSC TRIODE<br>MIXER HEX | 100<br>250<br>100 | .05MEG<br>—3<br>—3 | <br>100<br>100 | 3.8<br>2.5<br>2.3 | <br>6.0<br>6.2 | | <br>.6 MEG<br>.4 MEG | 3000<br>350C<br>325C | (TRIODE GRID 0v) | | <br>—30<br>—30 | 12K8GT |
| 12L6GT | BEAM<br>PWR AMP | HTR | 12.6 | 0.6 | 7S-OGT7 | 9DB | | | | CL A AMP | 200 | —8.0 | 110 | 50 | 1.5 | | 35000 | 8250 | 4.3 | 3000 | | 12L6GT |
| 12L8GT | TWIN<br>PENTODE | HTR | 12.6 | 0.15 | 8BU-OGT8 | 9DB | 0.7 | 5.0 | 6.0 | POWER AMP<br>CLASS A | 180 | —9 | 180 | 13 | 2.4 | | 0.16MEG | 2150 | 1.0 | 10000 | | 12L8GT |
| 12Q7GT | DUO-DI<br>TRIODE | HTR | 12.6 | .15 | 7V-OW7 | 9CA | 1.6* | 2.2* | 5* | AMPLIFIER<br>CLASS A | 250<br>100 | —3<br>—1.0 | | 1.0<br>0.8 | | 70<br>70 | 58000<br>58000 | 1200<br>1200 | | | | 12Q7GT |
| 12R5 | BM PENT | HTR | 12.6 | 0.6 | 7CV-MB7 | 5AC | 0.55 | 13 | 9.0 | POWER AMP | 110 | —8.5 | 110 | 40 | 3.3 | | 13000 | 7000 | | | —22 | 12R5 |
| 12S8GT | TRIP-DI<br>TRI | HTR | 12.6 | 0.15 | 8CB-OGT8 | 9EC | | | | DET-AMP | 250<br>100 | —2<br>—1 | | 0.9<br>0.4 | | 100<br>100 | | 1100<br>900 | | | | 12S8GT |
| 12SA7<br>12SA7GT | HEPTODE | HTR | 12.6 | .15 | 8R-OW8<br>8AD-OW8 | 8BB<br>9BC | .13<br>.20 | 9.5<br>11.0* | 12<br>12.0* | OSC SECT<br>MIXER | OSC<br>250 | GRID RES —.02 MEG<br>—2 | <br>100 | <br>3.5 | <br>8.5 | OSC GRID CUR —.5ma | <br>1.0MEG | <br>450C | | | —35 | 12SA7<br>12SA7GT |
| 12SC7 | TWIN TRI | HTR | 12.6 | .15 | 8S-OW8 | 8BB | | | | AMP CL A 1 SEC | 250 | —2 | | 2 | | 70 | 53000 | 1325 | | | | 12SC7 |
| 12SF5<br>12SF5GT | TRIODE | HTR | 12.6 | .15 | 6AB-OW6<br>6AB-OGT6 | 8BB<br>9DB | 2.6<br>2.6* | 4.2<br>4.2* | 3.8<br>3.8* | AMPLIFIER<br>CLASS A | 250<br>100 | —2<br>—1 | | 0.9<br>0.4 | | 100<br>100 | 66000<br>85000 | 1500<br>1150 | | | | 12SF5<br>12SF5GT |
| 12SF7<br>12SF7GT | DIODE<br>PENTODE | HTR | 12.6 | 0.15 | 7AZ-OW8<br>7AZ-OGT8 | 8BB<br>9BC | 0.004 | 5.5 | 6.5 | AMP CL A | 250<br>100 | —1<br>—1 | 125<br>100 | 12.4<br>12 | 3.3<br>3.4 | | 0.7MEG<br>0.2MEG | 2050<br>1975 | | | —35<br>—35 | 12SF7<br>12SF7GT |
| 12SG7 | PENTODE | HTR | 12.6 | 0.15 | 8BK-OW8 | 8BB | 0.003 | 8.5 | 7.0 | AMP CL A | 250<br>100 | —1<br>—1 | 125<br>100 | 11.8<br>8.2 | 4.4<br>3.2 | | 0.9MEG<br>0.25MEG | 4700<br>4100 | | | —14<br>—11.5 | 12SG7 |
| 12SH7 | PENTODE | HTR | 12.6 | 0.15 | 8BK-OW8 | 8BB | 0.003 | 8.5 | 7.0 | AMP CL A | 250<br>100 | —1<br>—1 | 100<br>100 | 10.8<br>5.3 | 4.1<br>2.1 | | 0.9MEG<br>0.35MEG | 4900<br>4000 | | | —5.5<br>—4 | 12SH7 |
| 12SJ7<br>12SJ7GT | PENTODE | HTR | 12.6 | .15 | 8N-OW8<br>8N-OW8 | 8BB<br>9BC | .005 | 6.0 | 7.0 | AMPLIFIER<br>CLASS A | 250<br>100 | —3<br>—3 | 100<br>100 | 3.0<br>2.9 | 0.8<br>0.9 | | 1.5MEG<br>0.7MEG | 1650<br>1575 | | | —9<br>—9 | 12SJ7<br>12SJ7GT |
| 12SK7<br>12SK7GT | PENTODE | HTR | 12.6 | .15 | 8N-OW8<br>8N-OW8 | 8BB<br>9BC | .003<br>.005 | 6.0<br>6.5 | 7.0<br>7.5 | AMPLIFIER<br>CLASS A | 250<br>100 | —3<br>—1 | 100<br>100 | 9.2<br>13.0 | 2.6<br>4.0 | | 0.8MEG<br>.12MEG | 2000<br>2350 | | | —35<br>—35 | 12SK7<br>12SK7GT |
| 12SL7GT | TWIN TRI | HTR | 12.6 | 0.15 | 8BD-OGT8 | 9DB | | | | CL A 1 SECT | 250 | —2 | | 2.3 | | 70 | 44000 | 1600 | | | | 12SL7GT |
| 12SN7GT | TWIN TRI | HTR | 12.6 | 0.3 | 8BD-OGT8 | 9DB | 4L<br>4R | 3.2L<br>3.8R | 3.4L<br>2.6R | CL A 1 SECT | 250<br>90 | —8<br>0 | | 9<br>10 | | 20<br>20 | 7700<br>6700 | 2600<br>3000 | | | | 12SN7GT |
| 12SQ7<br>12SQ7GT | DUO-DI<br>TRIODE | HTR | 12.6 | .15 | 8Q-OW8<br>8Q-OW8 | 8BB<br>9BC | 1.8 | 4.2 | 3.4 | AMPLIFIER<br>CLASS A | 250<br>100 | —2<br>—1 | | 0.9<br>0.4 | | 100<br>100 | 91000<br>110000 | 1100<br>900 | | | | 12SQ7<br>12SQ7GT |
| 12SR7<br>12SR7GT | DUO-DI<br>TRIODE | HTR | 12.6 | .15 | 8Q-OW8<br>8Q-OGT8 | 8BB<br>9DB | 2.3* | 3.5* | 3.8* | AMP CL A | 250 | —9 | | 9.5 | | 16 | 8500 | 1900 | | | | 12SR7<br>12SR7GT |
| 12SW7 | DBLE-DI<br>TRI | HTR | 12.6 | 0.15 | 8Q-OW8 | 8BB | 2.4 | 3.0 | 2.8 | DET-AMP | 250<br>26.5 | —9<br>0 | | 9.5<br>1.1 | | 16<br>17 | | 1900<br>1100 | | | | 12SW7 |
| 12SX7GT | DOUBLE<br>TRIODE | HTR | 12.6 | 0.3 | 8DB-OGT8 | 9DB | 3.6 | 2.8 | 1.2 | VOLTAGE AMP | 250<br>26.5 | —8<br>0 | | 9.0<br>1.8 | | 20<br>21 | | 2600<br>1800 | | | | 12SX7GT |
| 12SY7<br>12SY7GT | PENTA-<br>GRID | HTR | 12.6 | 0.15 | 8R-OW8<br>8AD-OGT8 | 8BB<br>9BC | 0.13<br>0.2 | 9.5<br>11 | 12<br>12 | CONVERTER | 250<br>28 | —2<br>—1 | 100<br>28 | 3.5<br>0.5 | 8.5<br>1.8 | | 1 MEG | 450C<br>250C | | | | 12SY7<br>12SY7GT |
| 12U7 | DBLE TRI | HTR | 12.6 | 0.15 | 7CK-MB9 | 5BB | 1.5 | 1.6 | 0.40 | CL A AMP | 12.6 | 0 | 12.6 | 1.0 | | 20 | 12500 | 1600 | | | —1.5 | 12U7 |
| 12V6GT | PENTODE | HTR | 12.6 | .225 | 7S-OGT7 | 9DB | .7 | 9 | 7.5 | POWER AMP | 180<br>250<br>315 | —8.5<br>—12.5<br>—13 | 180<br>250<br>315 | 29<br>45<br>34 | 3<br>4.5<br>2.2 | | 50000<br>50000<br>80000 | 3700<br>4100<br>3750 | 2.0<br>4.5<br>5.5 | 5500<br>5000<br>8500 | | 12V6GT |
| 12X4 | DBLE DI | HTR | 12.6 | .3 | 5BS-MB7 | 5AD | | | | FW RECTIFIER | MAX PEAK INVERSE = 1250 V; MAX Io = 70ma DC | | | | | | | | | | | 12X4 |
| 12Z3 | DIODE | HTR | 12.6 | .3 | 4G-SS4 | 12BA | | | | HW RECTIFIER | 235 RMS MAX | | | 55 DC MAX | | | TUBE DROP 17v AT 110ma DC | | | | | 12Z3 |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

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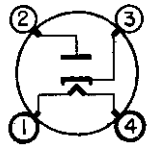
| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | VOLTS | AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | IN mmfds | OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14A4 | TRIODE | HTR | 12.6 | 0.15 | 5AC-L8 | 9AC | 4.0 | 3.4 | 3.0 | AMP CL A | 250<br>90 | —8<br>0 | | 9<br>10 | | 20<br>20 | 7700<br>6700 | 2600<br>3000 | | | | 14A4 |
| 14A5 | PENTODE | HTR | 12.6 | 0.15 | 6AA-L8 | 9AD | | | | POWER AMP CLASS A | 250 | —12.5 | 250 | 30 | 3.5 | | 50000 | 3000 | 2.5 | 7500 | | 14A5 |
| 14A7/12B7 | PENTODE | HTR | 12.6 | .15 | 8V-L8 | 9AC | .005* | 5.5* | 7.0* | AMP CL A | 250<br>100 | —3<br>—1 | 100<br>100 | 9.2<br>13.0 | 2.6<br>4.0 | 1600<br>1600 | .8 MEG<br>.12MEG | 2000<br>2350 | | | —35<br>—35 | 14A7/12B7 |
| 14AF7 | TWIN TRI | HTR | 12.6 | 0.150 | 8AC-L8 | 9AC | 2.3L<br>2.3R | 2.2L<br>2.2R | 1.6L<br>1.6R | CL A 1 SECT | 250<br>100 | —10<br>0 | | 9.0<br>10.8 | | 16<br>17 | 7600<br>6500 | 2100<br>2600 | | | | 14AF7 |
| 14B6 | DUO-DI TRIODE | HTR | 12.6 | 0.15 | 8W-L8 | 9AC | | | | DETECTOR AMPLIFIER | 250<br>100 | —2<br>—1 | | 0.9<br>0.4 | | 100<br>100 | 91000<br>110000 | 1100<br>900 | | | | 14B6 |
| 14B8 | HEPTODE | HTR | 12.6 | 0.15 | 8X-L8 | 9AC | 0.20 | 10 | 9.0 | OSC SECT MIXER | 250S<br>250 | .05MEG<br>—3 | 100 | 4.0<br>3.5 | 2.7 | | GRID #2 RES .02 MEG<br>.36MEG 550C | | | | —35 | 14B8 |
| 14C5 | BEAM PWR AMP | HTR | 12.6 | 0.225 | 6AA-L8 | 9AD | | | | PR AMP CL A<br>CL AB 2 TUBE | 315<br>285 | —13<br>—19 | 225<br>285 | 34<br>70 | 2.2<br>4 | | 77000<br>65000 | 3750<br>3600 | 5.5<br>14 | 8500<br>8000 | | 14C5 |
| 14C7 | PENTODE | HTR | 12.6 | 0.15 | 8V-L8 | 9AC | 0.007 | 6.0 | 6.5 | AMP CL A | 250<br>100 | —3<br>—1 | 100<br>100 | 2.2<br>5.7 | 0.7<br>1.8 | | 1 MEG<br>0.325MEG | 1575<br>2275 | | | —9<br>—9 | 14C7 |
| 14E6 | DUO-DI TRIODE | HTR | 12.6 | 0.15 | 8W-L8 | 9AC | | | | AMP CL A | 250<br>100 | —9<br>—3 | | 9.5<br>3.9 | | 16<br>16.5 | 8500<br>11000 | 1900<br>1500 | | | | 14E6 |
| 14E7 | DUO-DI PENTODE | HTR | 12.6 | 0.15 | 8AE-L8 | 9AC | 0.005 | 4.6 | 5.3 | DETECTOR AMPLIFIER | 250<br>100 | —3<br>—1 | 100<br>100 | 7.5<br>10 | 1.6<br>2.7 | | 0.7 MEG<br>0.15MEG | 1300<br>1600 | | | —42.5<br>—36 | 14E7 |
| 14F7 | TWIN TRI | HTR | 12.6 | 0.15 | 8AC-L8 | 9AC | | | | CL A 1 SECT | 250<br>100 | —2<br>—1 | | 2.3<br>0.65 | | 70<br>70 | 44000<br>62000 | 1600<br>1125 | | | | 14F7 |
| 14F8 | DOUBLE TRIODE | HTR | 12.6 | 0.15 | 8BW-L8 | 9AB | 1.2 | 2.8 | 1.4 | VOLTAGE AMP | 250 | Rk 500 | | 6.0 | 48 | | | 3300 | | | | 14F8 |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES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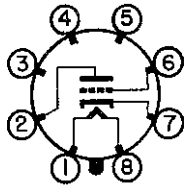
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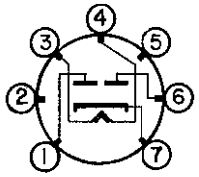
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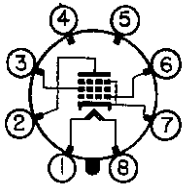
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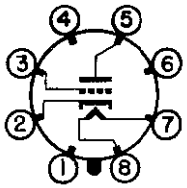
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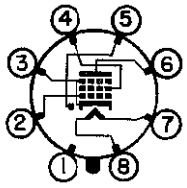
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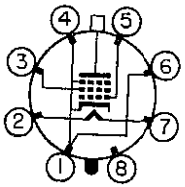
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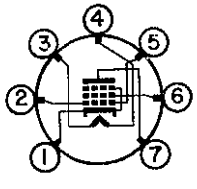
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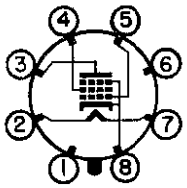
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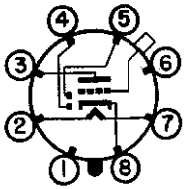
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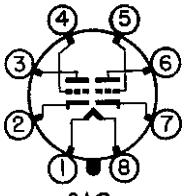
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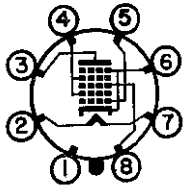
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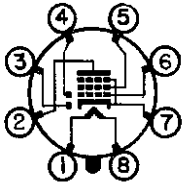
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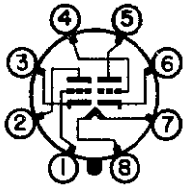
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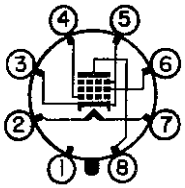
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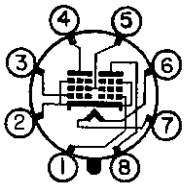
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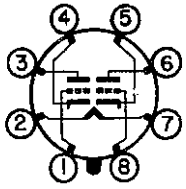
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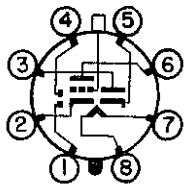
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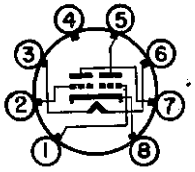
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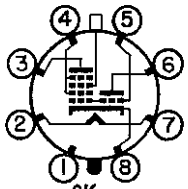
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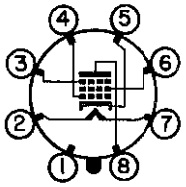
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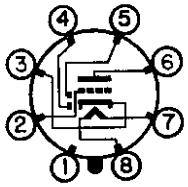
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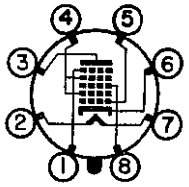
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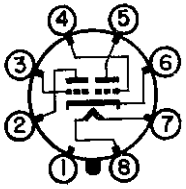
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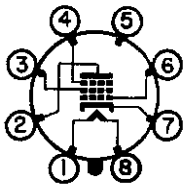
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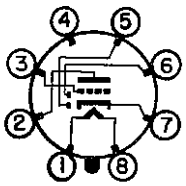
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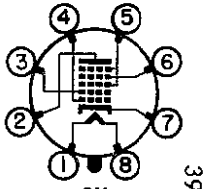
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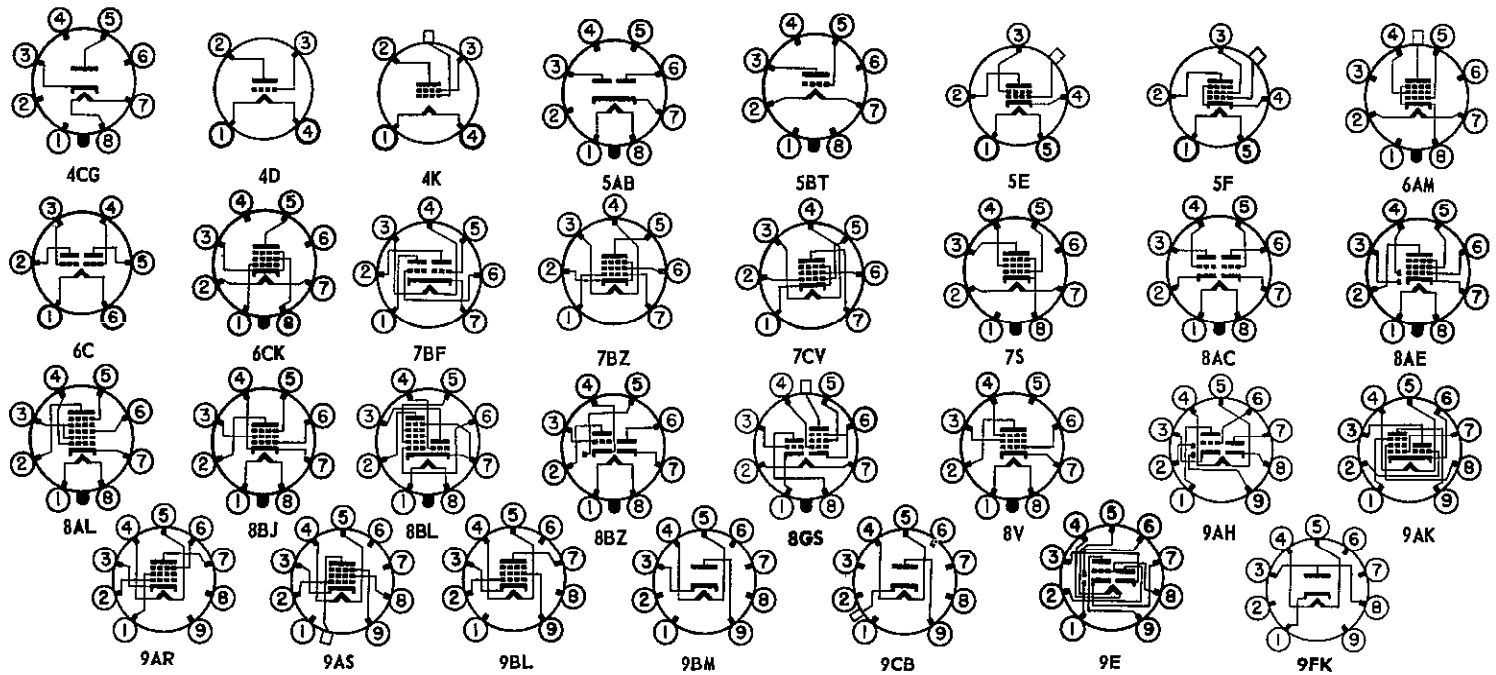
| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | VOLTS | AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | IN mmfds | OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14H7 | PENTODE | HTR | 12.6 | .15 | 8V-L8 | 9AC | .007* | 8.0* | 7.0* | AMP CL A | 250<br>100 | —2.5<br>—1 | 150<br>100 | 9.5<br>8.2 | 3.5<br>3.3 | | .8 MEG<br>.25MEG | 3800<br>3800 | | | —19<br>—12 | 14H7 |
| 14J7 | TRI HEX | HTR | 12.6 | 0.15 | 8BL-L8 | 9AC | 0.01 | 5.5 | 7.5 | OSC-TRIODE<br>MIXER HEX | 250S<br>250 | .05MEG<br>—3 | 100 | 5.4<br>1.3 | 2.9 | | TRIODE PLATE RESISTOR .02 MEG<br>1.5MEG | 300C | | | —20 | 14J7 |
| 14N7 | TWIN TRI | HTR | 12.6 | 0.30 | 8AC-L8 | 9AD | 3.0R<br>3.0L | 2.9R<br>3.4L | 2.4R<br>2.0L | CL A 1 SECT | 250<br>90 | —8<br>0 | | 9<br>10 | | 20<br>20 | 7700<br>6700 | 2600<br>3000 | | | | 14N7 |
| 14Q7 | HEPTODE | HTR | 12.6 | 0.15 | 8AL-L8 | 9AC | .2 | 9.0 | 9.0 | OSC SECT<br>MIXER | OSC GRID RESIS —.02 MEG<br>250 | —2 | 100 | 3.5 | 8.5 | | OSC GRID CUR —.5ma<br>1.0MEG | 550C | | | —35 | 14Q7 |
| 14R7 | DUO-DI PENTODE | HTR | 12.6 | 0.150 | 8AE-L8 | 9AC | 0.004 | 3.6 | 5.3 | AMP CL A | 250<br>100 | —1<br>—1 | 100<br>100 | 5.7<br>5.5 | 1.7<br>2.0 | | 1.0MEG<br>0.35MEG | 3200<br>3000 | | | —20<br>—16 | 14R7 |
| 14S7 | TRI HEX | HTR | 12.6 | 0.15 | 8BL-L8 | 9AC | 0.02 | 5.0 | 8.0 | OSC-TRIODE<br>MIXER | 250<br>250 | —2 | 100 | 5.0<br>1.8 | 3.0 | | TRIODE PLATE RESIS .02 MEG<br>1.25MEG | 525C | | | —21 | 14S7 |
| 14V7 | PENTODE | HTR | 12.6 | 0.225 | 8V-L8 | 9AC | 0.004 | 9.5 | 6.5 | HI FREQ AMP | 300 | —2 | 150 | 9.6 | 3.9 | | .3 MEG | 5800 | | | —6 | 14V7 |
| 14W7 | PENTODE | HTR | 12.6 | 0.225 | 8BJ-L8 | 9AC | 0.0025 | 9.5 | 7.0 | AMP CL A | 300<br>300 | —2<br>—2 | 150<br>300 | 10.0<br>THRU .04 MEG (OTHER VALUES SAME AS ABOVE) | 3.9 | | .3 MEG | 5800 | | | —6<br>—14 | 14W7 |
| 14X7 | DBLE-DI TRI | HTR | 12.6 | 0.15 | 8BZ-L8 | 9AD | | | | DET-AMP | 250<br>100 | —1<br>0 | | 1.9<br>1.2 | | 100<br>85 | | 1500<br>1000 | | | | 14X7 |
| 14Y4 | TWIN DI | HTR | 12.6 | 0.3 | 5AB-L8 | 9AD | | | | F W RECTIFIER | 325 RMS MAX COND IN 60 DC MAX TUBE DROP 20v AT 60ma DC<br>450 RMS MAX CHOKE IN 60 DC MAX | | | | | | | | | | | 14Y4 |
| 15 | PENTODE | HTR | 2.0 | .22 | 5F-SS5 | 12DA | .01* | 2.4 | 7.8 | AMPLIFIER<br>CLASS A | 135<br>67.5 | —1.5<br>—1.5 | 67.5<br>67.5 | 1.85<br>1.85 | 0.3<br>.3 | 600<br>450 | .8 MEG<br>.63MEG | 750<br>710 | | | | 15 |
| 15A6 | PENTODE | HTR | 15 | .3 | 9AR-MB9 | 5BD | .1 | 10 | 7 | VIDEO AMP | 180 | —2.9 | 180 | 36 | 4.6 | | .1 MEG | 10000 | | | | 15A6 |
| 15A8 | TRIODE BM PENT | HTR | 15.0 | 0.6 | 8GS-OGT8 | 9EC | 3.4<br>0.7 | 2.6<br>11.0 | 0.9<br>5.0 | OSCILLATOR AMPLIFIER | 110 | —7.5 | 110 | 45 | 4.0 | | 13000 | 7300 | | | | 15A8 |
| 16A5 | PENTODE | HTR | 16.5 | .3 | 9BL-MB9 | 5BD | 1 | 11 | 5.9 | POWER AMP | 200 | —13.9 | 180 | 45 | 8.5 | | 24000 | 7600 | 4.2 | 4000 | | 16A5 |
| 17AX4GT | DIODE | HTR | 16.8 | 0.45 | 4CG-OS5 | 9DB | | | | DAMPER | MAX PEAK INVERSE = 4000 volts; MAX Io = 125 ma | | | | | | | | | | | 17AX4GT |
| 17AV5GA | BM PENT | HTR | 16.8 | 0.45 | 6CK-OM6 | 11AB | 0.5 | 14 | 7.0 | AMPLIFIER | 250 | —22.5 | 150 | 57 | 2.1 | | 14500 | 5900 | | | —43 | 17AV5GA |
| 17C5 | BM PENT | HTR | 16.8 | 0.45 | 7CV-MB7 | 5AD | 0.5 | 13 | 6.5 | POWER AMP | 110 | —7.5 | 110 | 50 | 8.5 | | 14000 | 7500 | 1.9 | 2500 | | 17C5 |
| 17CA5 | BM PENT | HTR | 16.8 | 0.45 | 7CV-MB7 | 5AD | 0.5 | 15 | 9 | AF AMPLIFIER | 125 | —4.5 | 125 | 36 | 4.0 | | 15000 | 9200 | | 4500 | | 17CA5 |
| 17CU5 | BM PENT | HTR | 16.8 | 0.45 | 7CV-MB7 | 5AD | 0.7 | 13.2 | 8.6 | POWER AMP | 120 | —8 | 110 | 50 | 8.5 | | 10000 | 7500 | | 2500 | | 17CU5 |
| 17DQ6A | BM PENT | HTR | 16.8 | 0.45 | 6AM-OM7 | 12JC | 0.55 | 15 | 7 | POWER AMP | 250 | —22.5 | 150 | 75 | 2.4 | | 20000 | 6600 | | | —46 | 17DQ6A |
| 17H3 | DIODE | HTR | 17.5 | 0.3 | 9FK-MB9 | 5BC | 5.5 | 4.0 | 2.0 | DAMPER | MAX PEAK INVERSE = 2000 volts; Io = 75 ma MAX | | | | | | | | | | | 17H3 |
| 17L6GT | BEAM PWR AMP | HTR | 16.8 | 0.45 | 7S-OGT7 | 9DB | | | | CLASS A AMP | 200 | —8.0 | 110 | 50 | 1.5 | | 35000 | 8250 | 4.3 | 3000 | | 17L6GT |
| 17R5 | BM PENT | HTR | 16.8 | 0.45 | 7CV-MB7 | 5AC | 0.55 | 13 | 9.0 | POWER AMP | 110 | —8.5 | 110 | 40 | 3.3 | | 13000 | 7000 | | | —22 | 17R5 |
| 17Z3 | DIODE | HTR | 17 | .3 | 9CB-MB9 | 5CD | | | | HW RECTIFIER | MAX PEAK INVERSE = 4500 V; MAX Io = 150ma DC | | | | | | | | | | | 17Z3 |
| 18A5 | BM PENT | HTR | 18.5 | 0.3 | 6CK-OGT6 | 9BD | 0.7 | 13 | 7.0 | POWER AMP | 200 | —17 | 125 | 40 | 1.1 | 4.6 | 27000 | 4800 | | | —36 | 18A5 |
| 19 | TWIN TR | FIL | 2.0 | .26 | 6C-SS6 | 12BA | | | | CLASS B<br>TWO SECT | 135<br>135 | 0<br>—6 | | 10<br>0.1 | NO SIG<br>NO SIG | | | | 2.1<br>1.6 | 10000<br>10000 | | 19 |
| 19AQ5 | BM PENT | HTR | 18.9 | .15 | 7BZ-MB7 | 5AD | | | | POWER AMP | 180<br>250 | —8.5<br>—12.5 | 180<br>250 | 29<br>45 | 3<br>4.5 | | 58000<br>52000 | 3700<br>4100 | 2.0<br>4.5 | 5500<br>5000 | | 19AQ5 |
| 19AU4<br>19AU4GTA | DIODE | HTR | 18.9 | 0.6 | 4CG-OS6 | 9FB<br>9FB | | | | DAMPER | MAX PEAK INVERSE = 4500 volts; MAX Io = 175 ma | | | | | | | | | | | 19AU4<br>19AU4GTA |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | VOLTS | AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | IN mmfds | OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19BG6G | BEAM PENTODE | HTR | 18.9 | 0.3 | 5BT-OM6 | 16BA | 0.65 | 11 | 6.5 | DEFLECT AMP | MAX PEAK POS PLATE SURGE = 6000 volts; MAX Ib = 100 ma | | | | | | | | | | | 19BG6G |
| 19BG6GA | BM PENT | HTR | 18.9 | 0.3 | 5BT-OM6 | 12JE | 0.5 | 11.0 | 6.5 | DEFLECT AMP | MAX PEAK POS PLATE SURGE = 6000 volts; MAX Ib = 100 ma | | | | | | | | | | | 19BG6GA |
| 19C8 | TRIPLE DI TRIODE | HTR | 18.9 | .15 | 9E-MB9 | 5BB | | | | AMP CL A | 100 | —1 | | .5 | | 100 | | 1250 | | | | 19C8 |
| 19J6 | DOUBLE TRIODE | HTR | 18.9 | 0.15 | 7BF-MB7 | 5AC | 1.5 | 2.0 | 0.4 | CONVERTER | 150 | Rk 810 | | 4.8 | | | 10200 | 1900C | | | | 19J6 |
| 19T8 | TRIP-DI TRI | HTR | 18.9 | 0.15 | 9E-MB9 | 5BB | 2.4 | 1.5 | 1.1 | DET-AMP | 250<br>100 | —3<br>—1 | | 1.0<br>0.8 | | 70<br>70 | | 1200<br>1300 | | | | 19T8 |
| 19V8 | TRIPLE DI TRIODE | HTR | 18.9 | .15 | 9AH-MB9 | 5BB | | | | AMP CL A | 100<br>250 | —1<br>—3 | | .8<br>1.0 | | 70<br>70 | | 1300<br>1200 | | | | 19V8 |
| 19X3 | DIODE | HTR | 19 | .3 | 9BM-MB9 | 5CC | | | | HW RECTIFIER | MAX PEAK INVERSE = 4000 V; MAX Io = 180ma DC | | | | | | | | | | | 19X3 |
| 19X8 | TRIODE<br>PENTODE | HTR | 18.9 | .15 | 9AK-MB9 | 5BB | 1.4<br>.9 | 2.0<br>4.3 | .5<br>.7 | TRIODE SECT<br>PENTODE SECT | 150<br>150 | Rg = 2700<br>—3.5 150 | | 13<br>6.2 | (250 MC OSC)<br>1.8 | | | 2100C | (MIXER) | | | 19X8 |
| 19Y3 | DIODE | HTR | 19 | .3 | 9BM-MB9 | 5BD | | | | HW RECTIFIER | MAX PEAK INVERSE = 700 V; MAX Io = 180ma DC | | | | | | | | | | | 19Y3 |
| 20 | TRIODE | FIL | 3.3 | .132 | 4D-SS4 | 9FC | 4.1 | 2.0 | 2.3 | PR AMP CL A | 135 | —22.5 | | 6.5 | | 3.3 | 6300 | 525 | .11 | 6500 | | 20 |
| 21A6 | PENTODE | HTR | 21.5 | .3 | 9AS-MB9 | 5CD | .4 | 14.3 | 6.5 | AMP CL A | 180 | —23 | 180 | 45 | 3 | | | 6500 | | | | 21A6 |
| 22 | TETRODE | FIL | 3.3 | .132 | 4K-SM4 | 14CA | .02* | 3.3 | 12 | AMP CL A | 135 | —1.5 | 67.5 | 3.7 | 1.3 | | .33MEG | 500 | | | | 22 |
| 24A<br>24S | TETRODE | HTR | 2.5 | 1.75 | 5E-SM5<br>5E-SM5 | 14CA | .007* | 5.3 | 10.5 | AMPLIFIER CLASS A | 250<br>180 | —3<br>—3 | 90<br>90 | 4<br>4 | 1.7<br>1.7 | 630<br>400 | .6 MEG<br>.4 MEG | 1050<br>1000 | | | | 24A<br>24S |
| 25A6<br>25A6G<br>25A6GT | PENTODE | HTR | 25 | .3 | 7S-OW7<br>7S-OM7<br>7S-OW7 | 8FA<br>14BA<br>9DB | | | | AMPLIFIER CLASS A | 160<br>135<br>95 | —18<br>—20<br>—15 | 120<br>135<br>95 | 33<br>37<br>20 | 6.5<br>8<br>4 | | 42000<br>35000<br>45000 | 2375<br>2450<br>2000 | 2.2<br>2.0<br>0.9 | 5000<br>4000<br>4500 | | 25A6<br>25A6G<br>25A6GT |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

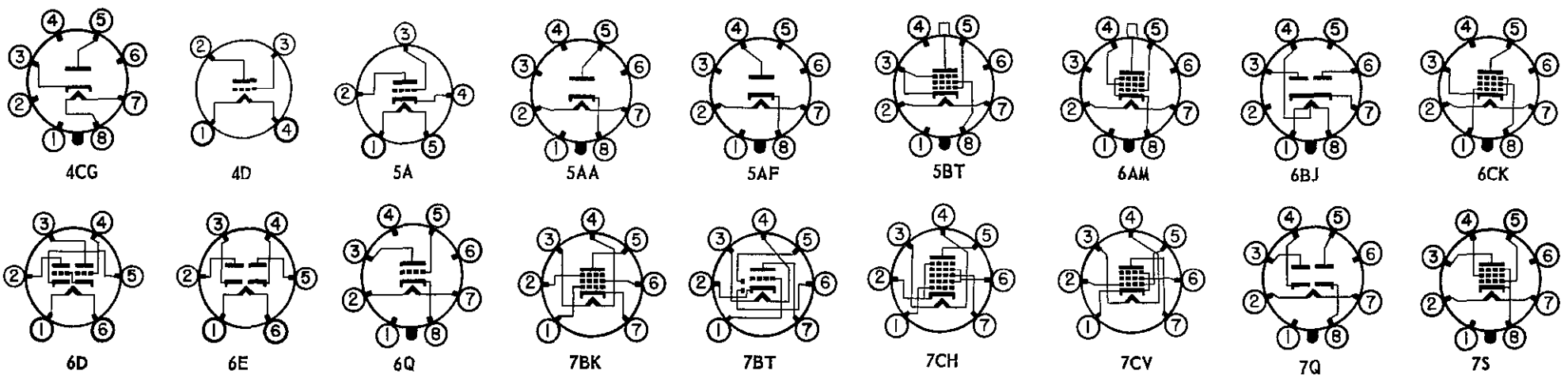


| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | CATHODE HTR OR FIL VOLTS | CATHODE HTR OR FIL AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | CAPACITIES IN mmfds | CAPACITIES OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 25A7GT | DIODE<br>PENTODE | HTR | 25 | .3 | 8F-OGT8 | 9DB | | | | H W RECT<br>AMP CL A | 117<br>100 | RMS MAX<br>—15 | 100 | 75 DC MAX<br>20.5 | 4 | 90 | TUBE DROP 23v AT 150ma DC<br>50000 | 1800 | .77 | 4500 | | 25A7GT |
| 25AC5GT | TRIODE | HTR | 25 | .3 | 6Q-OGT6 | 9DB | 6AE5G DRIVER | | | DIR C'P'D AMP | 110 | FROM DRIVER | | 45 | | | | | 2 | 2000 | | 25AC5GT |
| 25AV5GA | BM PENT | HTR | 25.0 | 0.3 | 6CK-OM6 | 11AB | 0.5 | 14 | 7.0 | AMPLIFIER | 250 | —22.5 | 150 | 57 | 2.1 | | 14500 | 5900 | | | —43 | 25AV5GA |
| 25AV5GT | BM PENT | HTR | 25 | .3 | 6CK-OGT6 | 9EA | | | | HORIZ AMP | MAX PEAK POS. PLATE SURGE = 5500 V<br>MAX Ik = 100ma | | | | | | | | | | | 25AV5GT |
| 25AX4GT | DIODE | HTR | 25 | .300 | 4CG-OS5 | 9DB | | | | DAMPER | MAX PEAK INVERSE = 4000 V; MAX Io = 125ma. | | | | | | | | | | | 25AX4GT |
| 25B5 | DUO-TRI | HTR | 25 | 0.3 | 6D-SS6 | 14BA | DRIVER TRIODE<br>OUTPUT TRIODE | | | DIR C'P'D AMP<br>2 TUBES CL A | 180<br>180 | —20<br>+ | | 5.8<br>46 | | | 15200 | 2300 | 3.8 | 4000 | | 25B5 |
| 25B6G | PENTODE | HTR | 25 | .3 | 7S-OM7 | 14BA | | | | POWER AMP<br>CLASS A | 200<br>135<br>105 | —23<br>—22<br>—16 | 135<br>135<br>105 | 62<br>61<br>48 | 1.8<br>2.5<br>2.0 | | 18000<br>15000<br>15500 | 5000<br>5000<br>4800 | 7.1<br>4.3<br>2.4 | 2500<br>1700<br>1700 | | 25B6G |
| 25B8GT | TRIODE<br>PENTODE | HTR | 25 | .15 | 8T-OGT8 | 9EB | | | | CL A TRIODE<br>CL A PENTODE | 100<br>100 | —1<br>—3 | 100 | 0.6<br>7.6 | 2.0 | 113 | .08MEG<br>.19MEG | 1500<br>2000 | | | —2.5<br>—41 | 25B8GT |
| 25BK5 | BM PENT | HTR | 25 | .3 | 9BQ-MB9 | 5BC | .6 | 13 | 5 | POWER AMP | 250 | —5 | 250 | 35 | 3.5 | | .1 MEG | 8500 | 3.5 | 6500 | | 25BK5 |
| 25BQ6GT | BM PENT | HTR | 25 | .3 | 6AM-OGT7 | 9EC | .95 | 14 | 9.5 | HORIZ. AMP | MAX PEAK POS. PLATE SURGE = 5500 V<br>MAX PLATE DISS = 12 WATTS | | | | | | | | | | | 25BQ6GT |
| 25BQ6GA<br>25BQ6GTB | BM PENT | HTR | 25.0 | 0.3 | 6AM-OGT6 | 11BB<br>9EC | 0.6 | 15 | 7.5 | POWER AMP | 250 | —22.5 | 150 | 55 | 2.1 | | 20000<br>18000 | 5500<br>6000 | | | —46 | 25BQ6GA<br>25BQ6GTB |
| 25C5 | BM PENT | HTR | 25 | .3 | 7CV-MB7 | 5AD | | | | POWER AMP | 110 | —7.5 | 110 | 49 | 4 | | 10000 | 7500 | 1.9 | 2500 | | 25C5 |
| 25C6G | BW PWR | HTR | 25 | .3 | 7S-OM7 | 14AA | | | | POWER AMP<br>CLASS A | 200<br>135 | —14<br>—13.5 | 135<br>135 | 61<br>58 | 2.2<br>3.5 | | 18300<br>9300 | 7100<br>7000 | 6.0<br>3.6 | 2600<br>2000 | | 25C6G |
| 25C6GA | BM PENT | HTR | 25.0 | 0.3 | 7S-OM7 | 12GD | | | | CL A AMP | 200 | —14 | 135 | 66 | 9 | | 18300 | 7100 | 6 | 2600 | | 25C6GA |
| 25CA5 | BM PENT | HTR | 25.0 | 0.3 | 7CV-MB7 | 5AD | 0.5 | 15 | 9 | AF AMPLIFIER | 125 | —4.5 | 125 | 36 | 4.0 | | 15000 | 9200 | | 4500 | | 25CA5 |
| 25CD6G<br>25CD6GA<br>25CD6GB | BM PENT<br>BEAM<br>PENTODE | HTR<br><br>HTR | 25<br><br>25.0 | .3<br><br>0.6 | 5BT-OM6<br><br>5BT-OM8 | 16CA<br>16CA<br>12JE | 1.0<br><br>1.1 | 2.6<br><br>22 | 10<br><br>8.5 | HORIZ. AMP<br>HORIZ. DEFLECT<br>AMPLIFIER | 430<br><br>175 | Rk 270<br><br>—30 | 165<br><br>175 | 112<br><br>75 | 14<br><br>5.5 | MAX PULSE PEAK POS. PLATE = 6000 V | 7200 | 7700 | | | —55 | 25CD6G<br>25CD6GA<br>25CD6GB |
| 25D8GT | DIODE<br>TRIODE<br>PENTODE | HTR | 25 | 0.15 | 8AF-OGT8 | 9DB | 2.5<br>0.015 | 3.7<br>5.2 | 4.5<br>10 | DETECTOR<br>CL A TRIODE<br>CL A PENTODE | 100<br>100 | —1<br>—3 | 100 | 0.5<br>8.5 | 2.7 | 100 | 91000<br>0.2MEG | 1100<br>1900 | | | —35 | 25D8GT |
| 25DN6 | PENTODE | HTR | 25.0 | 0.6 | 5BT-OM8 | 12JE | 0.8 | 22 | 11.5 | POWER AMP | 125 | —18 | 125 | 70 | 6.3 | | 4000 | 9000 | | | —36 | 25DN6 |
| 25DQ6 | BM PENT | HTR | 25.0 | 0.3 | 6AM-OM7 | 12JC | 0.55 | 15 | 7 | POWER AMP | 250 | —22.5 | 150 | 75 | 2.4 | | 20000 | 6600 | | | —46 | 25DQ6 |
| 25F5 | BM PENT | HTR | 25.0 | 0.15 | 7CV-MB7 | 5AD | | | | CL A AMP | 110 | —7.5 | 110 | 37 | 7.0 | | 16000 | 5800 | | 2500 | | 25F5 |
| 26E6G | BM PENT | HTR | 26.5 | 0.3 | 7S-OGT8 | 11AA | | | | POWER AMP | 200 | —19 | 135 | 66 | 9 | | 18000 | 7100 | 6 | 2600 | | 26E6G |
| 25L6<br>25L6GT | BEAM<br>PWR AMP | HTR | 25 | .3 | 7S-OW7<br>7S-OGT7 | 8FA<br>9DB | | | | POWER AMP<br>CLASS A | 110<br>200 | —7.5<br>—8.0 | 110<br>110 | 49<br>50 | 4<br>1.5 | | 10000<br>35000 | 8200<br>8250 | 2.1<br>4.3 | 2000<br>3000 | | 25L6<br>25L6GT |
| 25N6G | DUO-TRIODE | HTR | 25 | 0.3 | 7W-OM7 | 14BA | DRIVER TRIODE<br>OUTPUT TRIODE | | | DIR C'P'D AMP | 180<br>180 | —20<br>+ | | 5.8<br>4.6 | | 35 | 15200 | 2300 | 3.8 | 4000 | | 25N6G |
| 25U4GT | DIODE | HTR | 25 | .3 | 4CG-OGT5 | 9DB | | | | DAMPER | MAX PEAK INVERSE = 3850 V; MAX Io = 138ma DC | | | | | | | | | | | 25U4GT |
| 25W4GT | DIODE | HTR | 25 | .3 | 4CG-OGT6 | 9DB | | | | DAMPER | MAX PEAK INVERSE = 1250 V; MAX Io = 125ma DC | | | | | | | | | | | 25W4GT |
| 25W6GT | BM PENT | HTR | 25 | .3 | 7S-OGT7 | 9DB | | | | VERT. AMP | MAX PEAK POS. PLATE = 1200 V; MAX PEAK Ik = 140ma | | | | | | | | | | | 25W6GT |
| 25X6GT | TWIN<br>DIODE | HTR | 25 | 0.15 | 7Q-OGT7 | 9DB | | | | H W RECT<br>V DOUBLER | 250<br>125 | RMS MAX<br>RMS MAX | | 60 DC MAX<br>60 DC MAX | | | TUBE DROP 25v AT 120ma DC | | | | | 25X6GT |
| 25Y4GT | DIODE | HTR | 25 | 0.15 | 5AF-OGT7 | 9DB | | | | H W RECT | 125 | RMS MAX | | 75 DC MAX | | | TUBE DROP 18v AT 125ma DC | | | | | 25Y4GT |
| 25Y5 | TWIN<br>DIODE | HTR | 25 | .3 | 6E-SS6 | 12BA | | | | H W RECT<br>V DOUBLER | 250<br>117 | RMS MAX<br>RMS MAX | | 85 DC MAX<br>85 DC MAX | | | (EXPORT TYPE) | | | | | 25Y5 |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | VOLTS | AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | IN mmfds | OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 25Z4GT | DIODE | HTR | 25 | 0.3 | 5AA-OGT7 | 9DB | | | | H W RECT | 125 RMS MAX | | | 125 DC MAX | | | TUBE DROP 12v AT 125ma DC | | | | | 25Z4GT |
| 25Z5<br>25Z6<br>25Z6GT | TWIN DIODE | HTR | 25 | .3 | 6E-SS6<br>7Q-OW7<br>7Q-OGT7 | 12BA<br>8FA<br>9DB | | | | H W RECT<br>V DOUBLER | 235 RMS MAX<br>117 RMS MAX | | | 75 DC MAX<br>75 DC MAX | | | TUBE DROP 22v AT 150ma DC | | | | | 25Z5<br>25Z6<br>25Z6GT |
| 26 | TRIODE | FIL | 1.5 | 1.05 | 4D-SM4 | 14BA | 8.1 | 3.5 | 2.2 | AMP CL A | 180 | —14.5 | | 6.2 | | 8.3 | 7300 | 1140 | | | | 26 |
| 26A6 | PENTODE | HTR | 26.5 | 0.07 | 7BK-MB7 | 5AC | .0035 | 6.0 | 5.0 | VOLTAGE AMP | 250<br>26.5 | Rk 125<br>0 | 100<br>26.5 | 10.5<br>1.7 | 4.0<br>0.7 | | 1 MEG<br>0.25MEG | 4000<br>2000 | | | —25<br>—8 | 26A6 |
| 26A7GT | DBL BEAM PENTODE | HTR | 26.5 | 0.6 | 8BU-OGT8 | 9FB | 1.2 | 16 | 13 | POWER AMP | 26.5 | —4.5 | 26.5 | 20.5 | 5.5 | | 2500 | 5500 | 0.2 | 1500 | | 26A7GT |
| 26BK6 | DBLE DI TRIODE | HTR | 25 | .07 | 7BT-MB7 | 5AD | | | | DET-AMP | 100<br>250 | —1<br>—2 | | .5<br>1.2 | | 100<br>100 | | 1250<br>1600 | | | | 26BK6 |
| 26C6 | DBLE-DI TRI | HTR | 26.5 | 0.07 | 7BT-MB7 | 5AC | 2 | 1.8 | 1.4 | DET-AMP | 250<br>26.5 | —9<br>0 | | 9.5<br>1.1 | | 16<br>17 | | 1900<br>1100 | | | | 26C6 |
| 26CG6 | PENTODE | HTR | 26.5 | .07 | 7BK-MB7 | 5AC | .008 | 5 | 5 | AMP CL A | 250 | —8 | 150 | 9 | 2.3 | | .72MEG | 2000 | | | | 26CG6 |
| 26D6 | PENTA-GRID | HTR | 26.5 | 0.07 | 7CH-MB7 | 5AC | 0.3 | 7.5 | 14 | CONVERTER | 250<br>26.5 | —1.5<br>—0.5 | 100<br>26.5 | 3.0<br>0.45 | 7.8<br>1.6 | | 1 MEG | 475C<br>270C | | | —30<br>—6 | 26D6 |
| 26Z5 | DBLE DI | HTR | 26.5 | .2 | 9U-MB9 | 5BB | | | | FW RECTIFIER | MAX PEAK INVERSE = 1250 V; MAX Io = 120ma DC | | | | | | | | | | | 26Z5 |
| 27<br>27S | TRIODE | HTR | 2.5 | 1.75 | 5A-SS5<br>5A-SS5 | 12BA | 3.3 | 3.5 | 3.0 | AMPLIFIER CLASS A | 250<br>135 | —21<br>—9 | | 5.2<br>4.5 | | 9<br>9 | 9250<br>9000 | 975<br>1000 | | | | 27<br>27S |
| 28D7 | TW PENT | HTR | 28 | 0.40 | 8BS-L8 | 9AD | | | | PR AMP CL A | 28 | —3.5 | 28 | 12.5 | 1.0 | | 3000 | 3000 | .1 | 4000 | | 28D7 |
| 28Z5 | TWIN DI | HTR | 28 | 0.24 | 6BJ-L8 | 9AD | | | | FULL WAVE RECTIFIER | 325 RMS MAX COND IN 100 DC MAX<br>450 RMS MAX CHOKE IN 100 DC MAX | | | | | | TUBE DROP 40v AT 100ma DC | | | | | 28Z5 |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES



| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | CATHODE HTR OR FIL VOLTS | CATHODE HTR OR FIL AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | CAPACITIES IN mmfds | CAPACITIES OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30 | TRIODE | FIL | 2.0 | .06 | 4D-SS4 | 12BA | 6.0 | 3.7 | 2.1 | AMP CL A<br>BIAS DET | 180<br>180 | —13.5<br>—18 | | 3.1<br>0.2 WITH NO SIGNAL | | 9.3 | 10300 | 900 | (SEE 1H4G ALSO) | | | 30 |
| 31 | TRIODE | FIL | 2.0 | .13 | 4D-SS4 | 12BA | 5.7 | 3.5 | 2.7 | AMPLIFIER<br>CLASS A | 180<br>135 | —30<br>—22.5 | | 12.3<br>8 | | 3.8<br>3.8 | 3600<br>4100 | 1050<br>925 | 3.75<br>.185 | 5700<br>7000 | | 31 |
| 31BX7GT | TWIN TRIODE | HTR | 31.5 | .3 | 8BD-OS8 | 9DB | 4.2 | 4.4 | 1.1 | VERT. AMP | MAX PEAK POS. PLATE PULSE = 2000V<br>MAX PLATE DISS. = 10 WATTS; PEAK Ik = 180ma | | | | | | | | | | | 31BX7GT |
| 32 | TETRODE | FIL | 2.0 | .06 | 4K-SM4 | 14CA | .015* | 5.3 | 10.5 | AMPLIFIER<br>CLASS A | 180<br>135 | —3<br>—3 | 67.5<br>67.5 | 1.7<br>1.7 | 0.4<br>0.4 | 780<br>610 | 1.2MEG<br>.95MEG | 650<br>640 | | | | 32 |
| 32L7GT | DIODE BM PWR | HTR | 32.5 | .3 | 8Z-OGT8 | 9DB | | | | H W RECT<br>POWER AMP<br>CLASS A | 125 RMS MAX<br>110<br>90 | <br>—7.5<br>—7 | <br>110<br>90 | 60 DC MAX<br>40<br>27 | <br>3<br>2 | | <br>15000<br>17000 | <br>6000<br>4800 | <br>1.5<br>1.0 | <br>2500<br>2600 | | 32L7GT |
| 33 | PENTODE | FIL | 2.0 | .26 | 5K-SM5 | 14BA | | | | POWER AMP<br>CLASS A | 180<br>135 | —18<br>—13.5 | 180<br>135 | 22<br>14.5 | 5<br>3 | 90<br>70 | 55000<br>50000 | 1700<br>1450 | 1.4<br>0.7 | 6000<br>7000 | | 33 |
| 34 | PENTODE | FIL | 2.0 | .06 | 4M-SM4 | 14CA | .015* | 6.0 | 11.5 | AMPLIFIER<br>CLASS A | 180<br>67.5 | —3<br>—3 | 67.5<br>67.5 | 2.8<br>2.7 | 1.0<br>1.1 | 620<br>224 | 1 MEG<br>0.4MEG | 620<br>560 | | | —22.5<br>—22.5 | 34 |
| 35/51<br>35S/51S | TETRODE | HTR | 2.5 | 1.75 | 5E-SM5<br>5E-SM5 | 14CA | .007* | 5.3 | 10.5 | AMPLIFIER<br>CLASS A | 250<br>180 | —3<br>—3 | 90<br>90 | 6.5<br>6.3 | 2.5<br>2.5 | 420<br>305 | 0.4MEG<br>0.3MEG | 1050<br>1020 | | | —40.0<br>—40.0 | 35/51<br>35S/51S |
| 35A5 | BM PWR | HTR | 32 | .15 | 6AA-L8 | 9AD | | | | POWER AMP<br>CLASS A | 110<br>200 | —7.5<br>—8.0 | 110<br>110 | 40<br>41 | 3.0<br>2.0 | | 14000<br>40000 | 5800<br>5900 | 1.5<br>3.3 | 2500<br>4500 | | 35A5 |
| 35B5<br>35C5 | BEAM PENTODE | HTR | 35 | 0.15 | 7BZ-MB7<br>7CV-MB7 | 5AD | 0.4 | 11 | 6.5 | POWER AMP | 110 | —7.5 | 110 | 41 | 7 | | | 5800 | 1.5 | 2500 | | 35B5<br>35C5 |
| 35CD6GA | BM PENT | HTR | 35.0 | 0.45 | 5BT-OM6 | 16CA | 1.0 | 2.6 | 10 | HORIZ AMP | 430 | Rk 270 | 165 | 112 | 14 | MAX PULSE PEAK POS PLATE = 6000 v | | | | | | 35CD6GA |
| 35L6GT | BM PWR | HTR | 35 | .15 | 7S-OGT7 | 9DB | | | | POWER AMP<br>CLASS A | 110<br>200 | —7.5<br>—8.0 | 110<br>110 | 40<br>41 | 3.0<br>2.0 | | 13800<br>40000 | 5800<br>5900 | 1.5<br>3.3 | 2500<br>4500 | | 35L6GT |
| 35W4 | DIODE | HTR | 35 | 0.15 | 5BQ-MB7 | 5AD | | | | H W RECTIFIER | MAX PEAK INVERSE = 330 volts, MAX Io = 90 madc | | | | | | | | | | | 35W4 |
| 35Y4 | DIODE | HTR | 35 | 0.15 | 5AL-L8 | 9AD | | | | H W RECT<br>LAMP TAP | 235 RMS MAX 100 DC MAX or 60 DC MAX WITH 6.3v — 150ma PANEL LAMP<br>TUBE DROP 18v AT 200ma DC | | | | | | | | | | | 35Y4 |
| 35Z3 | DIODE | HTR | 32 | .15 | 4Z-L8 | 9AD | | | | H W RECT | 235 RMS MAX | | | 100 DC MAX | | | TUBE DROP 20v AT 200ma DC | | | | | 35Z3 |
| 35Z4GT | DIODE | HTR | 35 | .15 | 5AA-OGT6 | 9DB | | | | H W RECT | 235 RMS MAX | | | 100 DC MAX | | | TUBE DROP 18v AT 200ma DC | | | | | 35Z4GT |
| 35Z5GT | DIODE | HTR<br>TAP | 35<br>7.5 | .15<br>.15 | 6AD-OGT6 | 9DB | | | | H W RECT<br>LAMP TAP | 235 RMS MAX | | | 100 DC MAX OR 60 DC MAX WITH 6.3v — 150ma<br>PANEL LAMP TUBE DROP 18v AT 200ma DC | | | | | | | | 35Z5GT |
| 35Z6G | TWIN DIODE | HTR | 35 | .3 | 7Q-OM7 | 14BA | | | | H W RECT<br>V DOUBLER | 235 RMS MAX<br>117 RMS MAX | | | 110 DC MAX<br>110 DC MAX | | | TUBE DROP 20v AT 220ma DC | | | | | 35Z6G |
| 36 | TETRODE | HTR | 6.3 | .3 | 5E-SS5 | 12DA | .007* | 3.7 | 9.2 | AMP CL A<br>BIAS DET | 250<br>250 | —3<br>—8 | 90<br>90 | 3.2<br>0.1 WITH NO SIGNAL | 1.7 | 595 | .55MEG | 1080 | | | | 36 |
| 37 | TRIODE | HTR | 6.3 | .3 | 5A-SS5 | 12BA | 2.0 | 3.5 | 2.2 | AMP CL A<br>BIAS DET | 250<br>250 | —18<br>—28 | | 7.5<br>.2 WITH NO SIGNAL | | 9.2 | 8400 | 1100 | | | | 37 |
| 38 | PENTODE | HTR | 6.3 | .3 | 5F-SS5 | 12DA | .3 | 3.5 | 7.5 | POWER AMP<br>CLASS A | 250<br>135 | —25<br>—13.5 | 250<br>135 | 22<br>9 | 3.8<br>1.5 | 120<br>120 | .1 MEG<br>.13MEG | 1200<br>925 | 2.5<br>0.55 | 10000<br>13500 | | 38 |
| 39/44 | PENTODE | HTR | 6.3 | .3 | 5F-SS5 | 12DA | .007* | 3.5 | 10 | AMPLIFIER<br>CLASS A | 250<br>90 | —3<br>—3 | 90<br>90 | 5.8<br>5.6 | 1.4<br>1.6 | 1050<br>360 | 1.0MEG<br>.38MEG | 1050<br>950 | | | —42.5<br>—42.5 | 39, 44 |
| 40 | TRIODE | FIL | 5.0 | .25 | 4D-SM4 | 14BA | 8.8 | 3.4 | 1.5 | AMP CL A | 180 | —3 | | 0.2 | | 30 | 15MEG | 200 | PL RESISTOR .25MEG | | | 40 |
| 41 | PENTODE | HTR | 6.3 | .4 | 6B-SS6 | 12BA | | | | POWER AMP<br>CLASS A | 315<br>250 | —21<br>—18 | 250<br>250 | 25.5<br>32 | 4.0<br>5.5 | | 75000<br>68000 | 2100<br>2300 | 4.5<br>3.4 | 9000<br>7600 | | 41 |

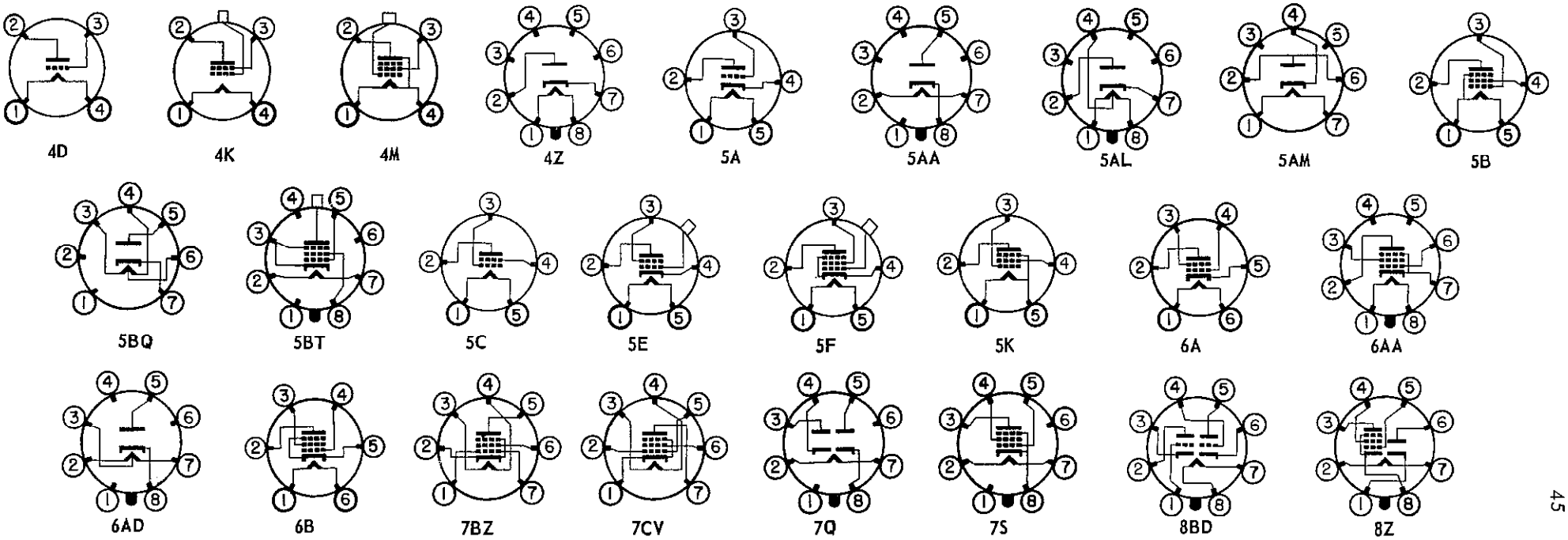
SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

RAYTHEON

RAYTHEON

| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | CATHODE HTR OR FIL VOLTS | CATHODE HTR OR FIL AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | CAPACITIES IN mmfds | CAPACITIES OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 42 | PENTODE | HTR | 6.3 | .7 | 6B-SM6 | 14BA | | | | PR AMP CL A | 285 | —20 | 285 | 38 | 7 | | 78000 | 2550 | 4.8 | 7000 | | 42 |
| | | | | | | | | | | | 250 | —16.5 | 250 | 34 | 6.5 | | 80000 | 2500 | 3.2 | 7000 | | |
| | | | | | | | | | | CL AB 2 TUBE | 375 | —26 | 250 | 34 | 5 | | | | 18.5 | 10000 | | |
| | | | | | | | | | | PUSH-PULL | 315 | —24 | 285 | 62 | 12 | (SEE TYPE 2A5 ALSO) | | | 11 | 10000 | | |
| 43 | PENTODE | HTR | 25 | .3 | 6B-SM6 | 14BA | | | | AMPLIFIER | 160 | —18 | 120 | 33 | 6.5 | | 42000 | 2375 | 2.2 | 5000 | | 43 |
| | | | | | | | | | | CLASS A | 135 | —20 | 135 | 37 | 8 | | 35000 | 2450 | 2.0 | 4000 | | |
| | | | | | | | | | | | 95 | —15 | 95 | 20 | 4 | | 45000 | 2000 | 0.9 | 4500 | | |
| 45 | TRIODE | FIL | 2.5 | 1.5 | 4D-SM4 | 14BA | 7 | 4 | 3 | POWER AMP | 275 | —56 | | 36 | | 3.5 | 1700 | 2050 | 2 | 4600 | | 45 |
| | | | | | | | | | | CLASS A | 180 | —31.5 | | 31 | | 3.5 | 1650 | 2125 | .825 | 2700 | | |
| | | | | | | | PUSH-PULL | | | CL AB 2 TUBE | 275 | —68 | | 28 | | | | | 18 | 3200 | | |
| 45Z3 | DIODE | HTR | 45 | 0.075 | 5AM-MB7 | 5AC | | | | H W RECT | 117 RMS MAX | | | 65 DC MAX | | | TUBE DROP 23v AT 130ma DC | | | | | 45Z3 |
| 45Z5GT | DIODE | HTR | 45 | .15 | 6AD-OGT6 | 9DB | | | | H W RECT | 235 RMS MAX | | | 100 DC MAX OR 60 DC MAX WITH 6.3v — 150ma | | | | | | | | 45Z5GT |
| | | | | | | | | | | LAMP TAP | | | | PANEL LAMP | | | TUBE DROP 16v AT 200ma DC | | | | | |
| 46 | DUAL GRID TRIODE | FIL | 2.5 | 1.75 | 5C-SM5 | 16AA | G2 TIED TO P | | | PR AMP CL A | 250 | —33 | | 22 | | 5.6 | 2380 | 2350 | 1.25 | 6400 | | 46 |
| | | | | | | | G1 TIED TO G2 | | | PR AMP CL B | 400 | 0 | | 12 NO SIGNAL | | | | | 20 | 5800 | | |
| | | | | | | | | | | 2 TUBES | 300 | 0 | | 8 NO SIGNAL | | | | | 16 | 5200 | | |
| 47 | PENTODE | FIL | 2.5 | 1.75 | 5B-SM5 | 16AA | | | | PR AMP CL A | 250 | —16.5 | 250 | 31 | 6 | 150 | 60000 | 2500 | 2.7 | 7000 | | 47 |
| 48 | TETRODE | HTR | 30 | .4 | 6A-SM6 | 16AA | | | | PR AMP CL A | 125 | —20 | 100 | 56 | 9.5 | | | 3900 | 2.5 | 1500 | | 48 |
| 49 | DUAL GRID TRIODE | FIL | 2.0 | .12 | 5C-SM5 | 14BA | G2 TIED TO P | | | PR AMP CL A | 135 | —20 | | 6 | | 4.7 | 4175 | 1125 | .17 | 11000 | | 49 |
| | | | | | | | G1 TIED TO G2 | | | PR AMP CL B | 180 | 0 | | 4 NO SIGNAL | | | | | 3.5 | 12000 | | |
| | | | | | | | | | | 2 TUBES | 135 | 0 | | 2.6 NO SIGNAL | | | | | 2.3 | 8000 | | |
| 50 | TRIODE | FIL | 7.5 | 1.25 | 4D-SM4B | 19AA | | | | POWER AMP | 450 | —84 | | 55 | | 3.8 | 1800 | 2100 | 4.6 | 4350 | | 50 |
| | | | | | | | | | | CLASS A | 350 | —63 | | 45 | | 3.8 | 1900 | 2000 | 2.4 | 4100 | | |
| 50A5 | PENTODE | HTR | 50 | 0.15 | 6AA-L8 | 9AD | | | | PR AMP CL A | 200 | —8 | 110 | 50 | 1.5 | | 35000 | 8250 | 4.7 | 3000 | | 50A5 |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

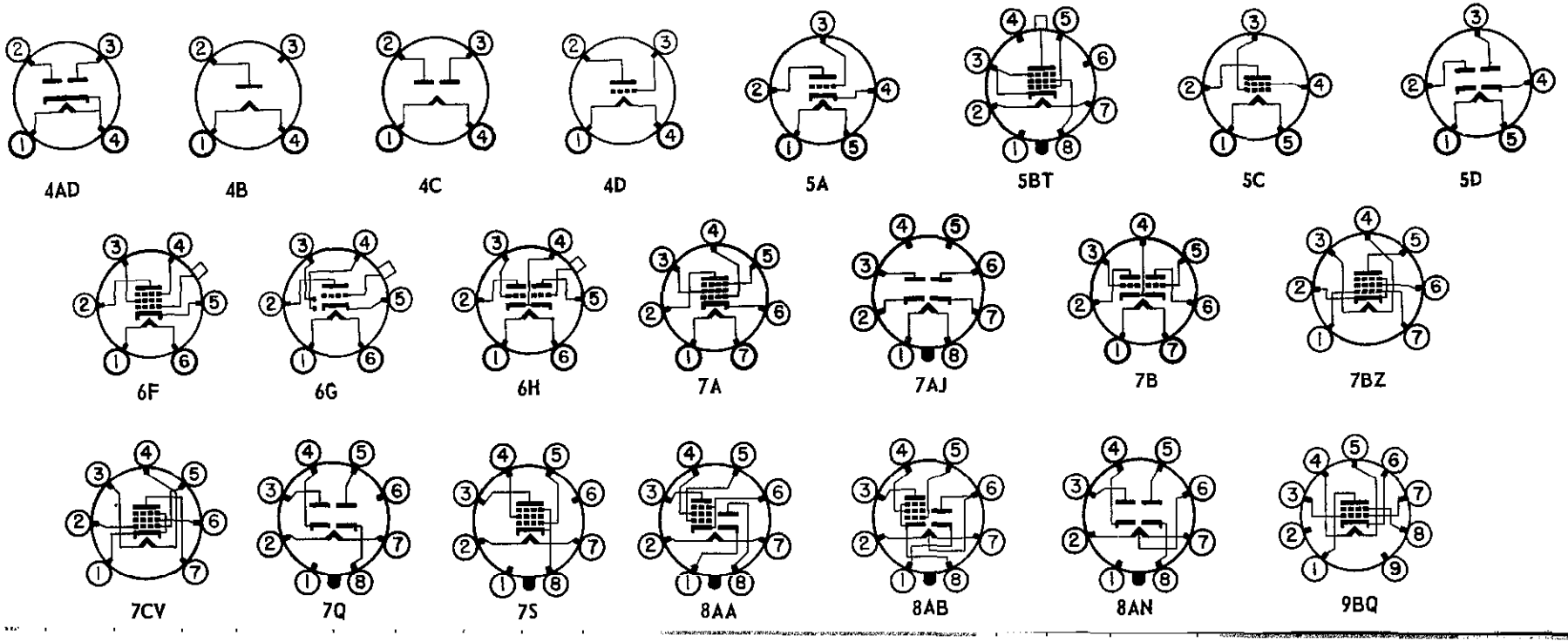


| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | CATHODE HTR OR FIL VOLTS | CATHODE HTR OR FIL AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | CAPACITIES IN mmfds | CAPACITIES OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50AX6G | DBLE DI | HTR | 50 | .3 | 7Q-OM7 | 14BA | | | | FW RECTIFIER | MAX PEAK INVERSE = 1250 V; MAX Io = 125ma DC | | | | | | | | | | | 50AX6G |
| 50B5<br>50C5 | BEAM PENTODE | HTR | 50 | 0.15 | 7BZ-MB7<br>7CV-MB7 | 5AD | 0.5 | 13 | 6.5 | POWER AMP | 110 | —7.5 | 110 | 50 | 8.5 | | 14000 | 7500 | 1.9 | 2500 | | 50B5<br>50C5 |
| 50BK5 | BM PENT | HTR | 50.0 | 0.15 | 9BQ-MB9 | 5BC | 0.6 | 13 | 5.0 | POWER AMP | 250 | —5.0 | 250 | 35 | 3.5 | | 0.1MEG | 8500 | 3.5 | 6500 | | 50BK5 |
| 50C6G | BM PWR | HTR | 50 | .15 | 7S-OM7 | 14BA | | | | POWER AMP<br>CLASS A | 200<br>135 | —14<br>—13.5 | 135<br>135 | 61<br>58 | 2.2<br>3.5 | | 18300<br>9300 | 7100<br>7000 | 6.0<br>3.6 | 2600<br>2000 | | 50C6G |
| 50C6GA | BM PENT | HTR | 50.0 | 0.15 | 7S-OM7 | 12GD | | | | CL A AMP | 200 | —14 | 135 | 66 | 9 | | 18300 | 7100 | 6 | 2000 | | 50C6GA |
| 50CD6G | BM PENT | HTR | 50 | .3 | 5BT-OM6 | 16CA | 1 | 2.6 | 10 | HORIZ AMP | MAX PEAK POS. PLATE PULSE = 6000 V<br>MAX PLATE DISS. = 15 WATTS; MAX Ib = 170ma DC | | | | | | | | | | | 50CD6G |
| 50L6GT | BM PWR | HTR | 50 | .15 | 7S-OGT7 | 9CB | | | | POWER AMP<br>CLASS A | 110<br>200 | —7.5<br>—8.0 | 110<br>110 | 49<br>50 | 4<br>1.5 | | 10000<br>35000 | 8200<br>8250 | 2.1<br>4.3 | 2000<br>3000 | | 50L6GT |
| 50X6<br>50Y6GT | TWIN DIODE | HTR | 50 | .15 | 7AJ-L8<br>7Q-OM7 | 9AD<br>9DB | | | | H W RECT<br>V DOUBLER | 235 RMS MAX<br>117 RMS MAX | | | 75 DC MAX<br>75 DC MAX | | | TUBE DROP 22v AT 150ma DC | | | | | 50X6<br>50Y6GT |
| 50Y7GT | DOUBLE DIODE | HTR | 50 | 0.15 | 8AN-OGT8 | 9DB | | | | VOLT. DOUBLER MAX RMS PLATE VOLTAGE = 117v PER PLATE, MAX Io = 75ma PER PLATE | | | | | | | | | | | | 50Y7GT |
| 50Z6G | DOUBLE DIODE | HTR | 50 | 0.3 | 7Q-OM7 | 14BA | | | | VOLT. DOUBLER MAX RMS PLATE VOLTAGE = 125v PER PLATE, MAX Io = 150ma | | | | | | | | | | | | 50Z6G |
| 50Z7G | TWIN DIODE | HTR | 50 | .15 | 8AN-OS7 | 12BA | | | | H W RECT<br>V DOUBLER<br>LAMP TAP | 117 RMS MAX<br>117 RMS MAX<br>2.5v — 150ma PANEL LAMP | | | 65 DC MAX<br>65 DC MAX | | | TUBE DROP 21v AT 130ma DC | | | | | 50Z7G |
| 52 | 2 GRID TRIODE | FIL | 6.3 | .3 | 5C-SM5 | 14BA | G2 TIED TO P<br>G1 TIED TO G2 | | | PR AMP CL A<br>CL B 2 TUBE | 110<br>180 | 0<br>0 | | 43<br>3 NO SIGNAL | | 5.2 | 1750 | 3000 | 1.5<br>5 | 2000<br>10000 | | 52 |
| 53 | TWIN TRIODE | HTR | 2.5 | 2.0 | 7B-SM7 | 14BA | | | | POWER AMP<br>CL B 2 SECT | 300 | 0 | | 35 MAX SIG PL CUR — 70ma<br>(SEE TYPE 6A6 ALSO) | | | | | 10 | 8000 | | 53 |
| 55<br>55S | DUO-DI TRIODE | HTR | 2.5 | 1.0 | 6G-SS6<br>6G-SS6 | 12DA | 1.7 | 2.0 | 3.5 | AMPLIFIER<br>CLASS A | 250<br>135 | —20<br>—10.5 | | 8<br>3.7 | | 8.3<br>8.3 | 7500<br>11000 | 1100<br>750 | .3<br>.075 | 20000<br>25000 | | 55<br>55S |
| 56<br>56S<br>56AS | TRIODE | HTR | 2.5<br>2.5<br>6.3 | 1.0<br>1.0<br>.3 | 5A-SS5<br>5A-SS5<br>5A-SS5 | 12BA | 3.2 | 3.2 | 2.2 | AMPLIFIER E<br>CLASS A<br>BIAS DET | 250<br>100<br>250 | —13.5<br>—5<br>—20 | | 5<br>2.5<br>0.2 WITH NO SIGNAL | | 13.8<br>13.8 | 9500<br>12000 | 1450<br>1150 | | | | 56<br>56S<br>56AS |
| 57<br>57S<br>57AS | PENTODE | HTR | 2.5<br>2.5<br>6.3 | 1.0<br>1.0<br>.4 | 6F-SS6<br>6F-SS6<br>6F-SS6 | 12DB | .007* | 5.0 | 6.5 | AMPLIFIER<br>CLASS A | 250<br>100 | —3<br>—3 | 100<br>100 | 2<br>2 | 0.5<br>0.5 | 1500<br>1185 | 1.5MEG<br>1.0MEG | 1224<br>1185 | | | —7<br>—7 | 57<br>57S<br>57AS |
| 58<br>58S<br>58AS | PENTODE | HTR | 2.5<br>2.5<br>6.3 | 1.0<br>1.0<br>.4 | 6F-SS6<br>6F-SS6<br>6F-SS6 | 12DB | .007* | .50 | 6.5 | AMPLIFIER<br>CLASS A | 250<br>100 | —3<br>—3 | 100<br>100 | 8.2<br>8 | 2<br>2.2 | 1280<br>375 | .8 MEG<br>.25MEG | 1600<br>1500 | | | —50<br>—50 | 58<br>58S<br>58AS |
| 59 | PENTODE | HTR | 2.5 | 2.0 | 7A-SM7 | 16AA | PENT CONN<br>$G_2$, $G_3$ TO PL<br>2 TUBES<br>$G_3$ TO P | | | PR AMP CL A<br>TRI CONN<br>PR AMP CL B<br>$G_1$ TO $G_2$ | 250<br>250<br>400<br>300 | —18<br>—28<br>0<br>0 | 250 | 35<br>26<br>26 NO SIGNAL<br>20 NO SIGNAL | 9 | 100<br>6 | 40000<br>2300 | 2500<br>2600 | 3<br>1.25<br>20<br>15 | 6000<br>5000<br>6000<br>4600 | | 59 |
| 70A7GT | DI BEAM PR AMP | HTR | 70 | .15 | 8AB-OGT8 | 9DB | | | | H W RECT<br>PR AMP CL A | 125 RMS MAX<br>110 | —7.5 | 110 | 70 DC MAX<br>40 | 3 | 80 | TUBE DROP 14v AT 120ma DC<br>5800 | | 1.5 | 2500 | | 70A7GT |
| 70L7GT | DIODE BM PWR | HTR | 70 | .15 | 8AA-OGT8 | 9DB | | | | H W RECT<br>PR AMP CL A | 125 RMS MAX<br>110 | —7.5 | 110 | 70 DC MAX<br>40 | 3 | | TUBE DROP 20v AT 140ma DC<br>15000 | 7500 | 1.8 | 2000 | | 70L7GT |
| 71A | TRIODE | FIL | 5 | .25 | 4D-SM4B | 14BA | | | | POWER AMP<br>CLASS A | 180<br>90 | —40.5<br>—16.5 | | 20<br>10 | | 3<br>3 | 1750<br>2170 | 1700<br>1400 | .79<br>.125 | 4800<br>3000 | | 71A |
| 75<br>75S | DUO-DI TRIODE | HTR | 6.3 | .3 | 6G-SS6<br>6G-SS6 | 12DA | 1.7 | 2.0 | 3.5 | AMPLIFIER<br>CLASS A | 250 | —2 | | 0.9 | | 100 | 91000 | 1100 | | | | 75<br>75S |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES

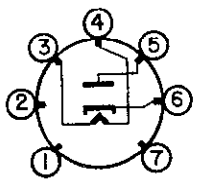
| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | CATHODE HTR OR FIL VOLTS | CATHODE HTR OR FIL AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | CAPACITIES IN mmfds | CAPACITIES OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 76 | TRIODE | HTR | 6.3 | .3 | 5A-SS5 | 12BA | | | | AMPLIFIER<br>CLASS A<br>BIAS DET | 250<br>100<br>250 | —13.5<br>—5<br>—20 | | 5<br>2.5<br>0.2 WITH NO SIGNAL | | 13.8<br>13.8 | 9500<br>12000 | 1450<br>1150 | | | | 76 |
| 77 | PENTODE | HTR | 6.3 | .3 | 6F-SS6 | 12DA | .007* | 4.7 | 11 | AMPLIFIER<br>CLASS A | 250<br>100 | —3<br>—1.5 | 100<br>60 | 2.3<br>1.7 | 0.5<br>0.4 | | 1.5MEG<br>0.6MEG | 1250<br>1100 | | | —7.5<br>—5.5 | 77 |
| 78 | PENTODE | HTR | 6.3 | .3 | 6F-SS6 | 12DA | .007* | 4.5 | 11 | AMPLIFIER<br>CLASS A | 250<br>250<br>100 | —3<br>—3<br>—1 | 125<br>100<br>100 | 10.5<br>7.0<br>9.5 | 2.6<br>1.7<br>2.7 | | .6 MEG<br>.8 MEG<br>.15MEG | 1650<br>1450<br>1650 | | | —52.5<br>—42.5<br>—38.5 | 78 |
| 79 | TWIN TR | HTR | 6.3 | .6 | 6H-SS6 | 12DA | | | | CL B AMP<br>2 SECTIONS | 250<br>180 | 0<br>0 | | 10.6 NO SIG<br>7.6 NO SIG | | | | | 8<br>5.5 | 14000<br>7000 | | 79 |
| 80 | TWIN DI | FIL | 5.0 | 2.0 | 4C-SM4 | 14BA | | | | FULL WAVE RECTIFIER | 350 FMS MAX COND IN 125 DC MAX TUBE DROP 60v AT 125ma DC<br>500 RMS MAX CHOKE IN 125 DC MAX | | | | | | | | | | | 80 |
| 81 | DIODE | FIL | 7.5 | 1.25 | 4B-SM4 | 16AA | | | | H W RECT | 700 RMS MAX 85 DC MAX TUBE DROP 91v AT 170ma DC | | | | | | | | | | | 81 |
| 82 | TWIN DI | FIL | 2.5 | 3.0 | 4C-SM4 | 14BA (MERCURY VAPOR) | | | | FULL WAVE RECTIFIER | 450 RMS MAX COND IN 115 DC MAX TUBE DROP 15v<br>550 RMS MAX CHOKE IN 115 DC MAX | | | | | | | | | | | 82 |
| 83 | TWIN DI | FIL | 5.0 | 3.0 | 4C-SM4 | 16AA (MERCURY VAPOR) | | | | FULL WAVE RECTIFIER | 450 RMS MAX COND IN 225 DC MAX TUBE DROP 15v<br>550 RMS MAX CHOKE IN 225 DC MAX | | | | | | | | | | | 83 |
| 83V | TWIN DI | HTR | 5.0 | 2.0 | 4AD-SM4 | 14BA | | | | FULL WAVE RECTIFIER | 375 RMS MAX COND IN 175 DC MAX TUBE DROP 23v AT 175ma DC<br>500 RMS MAX CHOKE IN 175 DC MAX | | | | | | | | | | | 83V |
| 84/6Z4 | TWIN DI | HTR | 6.3 | .5 | 5D-SS5 | 12BA | | | | FULL WAVE RECTIFIER | 325 RMS MAX COND IN 60 DC MAX TUBE DROP 20v AT 60ma DC<br>450 RMS MAX CHOKE IN 60 DC MAX | | | | | | | | | | | 84/6Z4 |
| 85 | DUO-DI TRIODE | HTR | 6.3 | .3 | 6G-SS6 | 12DA | 1.7 | 2.0 | 3.5 | AMP CL A | 250<br>180 | —20<br>—13.5 | | 8<br>6 | | 8.3<br>8.3 | 7500<br>8500 | 1100<br>975 | .35<br>.16 | 20000<br>20000 | | 85 |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES



| TYPE | DESIGN | CATHODE HTR OR FIL TYPE | VOLTS | AMPS | BASING DATA | MAX SIZE VIEW | CAPACITIES G-P mmfds | IN mmfds | OUT mmfds | USED AS | PLATE VOLTS | GRID VOLTS | SCR VOLTS | PLATE MA | SCR MA | AMP FACT | PLATE RESIS OHMS | MUT COND mmho | OUT PUT WATTS | LOAD RESIS OHMS | CUT OFF VOLTS | TYPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 85AS | DUO-DI TRIODE | HTR | 6.3 | 0.3 | 6G-SS6 | | | | | AMP CL A | 250 | —9 | | 5.5 | | 20 | | 1250 | | | | 85AS |
| 89 | PENTODE | HTR | 6.3 | .4 | 6F-SS6 | 12DA | $G_3$ TIED TO K<br>$G_1$ TIED TO $G_2$ | | | PENT PR AMP<br>CLASS A<br>CL B 2 TUBE | 250<br>135<br>180 | —25<br>—13.5<br>0 | 250<br>135 | 32<br>14<br>6 NO SIGNAL | 5.5<br>2.2 | 125<br>125 | 70000<br>92500<br>$G_3$ TIED TO P | 1800<br>1350 | 3.4<br>0.75<br>3.5 | 6750<br>9200<br>9400 | | 89 |
| V99<br>X99 | TRIODE | FIL | 3.3 | .063 | 4E-SV4<br>4D-SS4 | 8AA<br>9FC | 3.3 | 2.5 | 2.5 | AMP CL A<br>BIAS DET | 90<br>90 | —4.5<br>—10.5 | | 2.5<br>0.2 WITH NO SIGNAL | | 6.6 | 15500 | 425 | | | | V99<br>X99 |
| 117L/ M7GT | DI BEAM PR AMP | HTR | 117 | .09 | 8AO-OGT8 | 9DB | | | | H W RECT<br>PR AMP CL A | 117 RMS MAX<br>105 | —5.2 | 105 | 75 DC MAX<br>43 | 4 | | TUBE DROP 16v AT 160ma DC<br>17000 | 5300 | 0.85 | 4000 | | 117L/ M7GT |
| 117N7GT | DI BEAM PR AMP | HTR | 117 | .09 | 8AV-OGT8 | 9DB | | | | H W RECT<br>PR AMP CL A | 117 RMS MAX<br>100 | —6 | 100 | 75 DC MAX<br>51 | 6.0 | | TUBE DROP 16v AT 150ma DC<br>16000 | 7000 | 1.2 | 3000 | | 117N7GT |
| 117P7GT | DI BEAM PWR AMP | HTR | 117 | 0.09 | 8AV-OGT8 | 9DB | | | | H W RECT<br>PR AMP CL A | 117 RMS MAX<br>105 | —5.2 | 105 | 75 DC MAX<br>43 | 4 | | TUBE DROP 16v AT 50ma DC<br>17000 | 5300 | 0.85 | 4000 | | 117P7GT |
| 117Z3 | DIODE | HTR | 117 | 0.04 | 4CB-MB7 | 5AD | | | | H W RECTIFIER | MAX PEAK INVERSE = 330 volts, MAX Io = 90 madc | | | | | | | | | | | 117Z3 |
| 117Z4GT | DIODE | HTR | 117 | 0.04 | 5AA-OGT6 | 9DB | | | | H W RECT | 117 RMS MAX | | | 90 DC MAX | | | TUBE DROP 22.5v AT 180ma DC | | | | | 117Z4GT |
| 117Z6GT | TWIN DIODE | HTR | 117 | .075 | 7Q-OGT7 | 9DB | | | | RECTIFIER<br>V DOUBLER | 235 RMS MAX<br>117 RMS MAX | | | 60 DC MAX<br>60 DC MAX | | | TUBE DROP 15.5v AT 125ma DC | | | | | 117Z6GT |
| 182B/482B | TRIODE | FIL | 5.0 | 1.25 | 4D-SM4 | 14BA | | | | PR AMP CL A | 250 | —35 | | 18 | | 5 | | 1500 | | | | 182B/482B |
| 183/483 | TRIODE | FIL | 5.0 | 1.25 | 4D-SM4 | 14BA | | | | PR AMP CL A | 250 | —58 | | 20 | | 3 | | 1500 | | | | 183/483 |
| 485 | TRIODE | HTR | 3.0 | 1.25 | 5A-SS5 | 12BA | | | | AMP CL A | 180 | —10 | | 5.2 | | 12.8 | | 1300 | | | | 485 |
| 950 | PENTODE | FIL | 2.0 | .12 | 5K-SM5 | 14BA | | | | PR AMP CL A | 135 | —16.5 | 135 | 7.0 | 2.0 | 100 | .1 MEG | 1000 | .45 | 13500 | | 950 |
| BA | TWIN DI | COLD | | | 4J-SM4 | 19BA | GAS FILLED | | | F W RECT | 350 RMS MAX | | | 350 DC MAX | | | TUBE DROP 80v | | | | | BA |
| BH | TWIN DI | COLD | | | 4J-SM4 | 14AA | GAS FILLED | | | F W RECT | 350 RMS MAX | | | 125 DC MAX | | | TUBE DROP 90v | | | | | BH |
| BR | DIODE | COLD | | | 4H-SM4 | 12AA | GAS FILLED | | | H W RECT | 300 RMS MAX | | | 50 DC MAX | | | TUBE DROP 60v | | | | | BR |
| XXD | TWIN TRIODE | HTR | 12.6 | .15 | 8AC-L8 | 9AC | 2.3 | 2.2 | 1.6 | AMP CL A<br>1 SEC | 250<br>100 | —10<br>0 | | 9<br>10.8 | | 16<br>17 | 7600<br>6500 | 2100<br>2600 | | | | XXD |
| XXL | TRIODE | HTR | 6.3 | .3 | 5AC-L8 | 9AC | 2.0 | 3.4 | 2.6 | AMP CL A | 250<br>100 | —8<br>0 | | 8<br>10 | | 20<br>25 | 8700<br>7000 | 2300<br>3600 | | | | XXL |

SEE PAGE 4 FOR DATA CHART REFERENCE NOTES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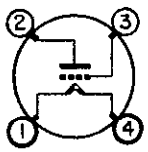
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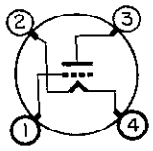
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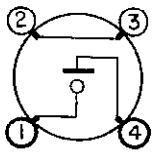
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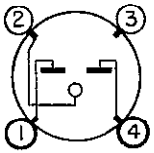
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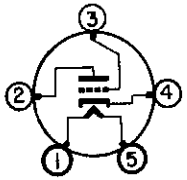
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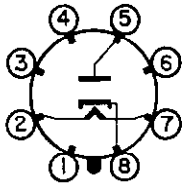
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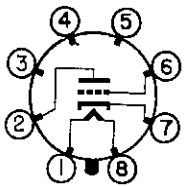
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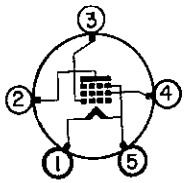
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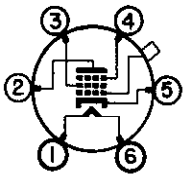
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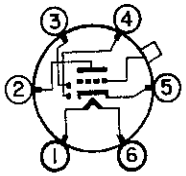
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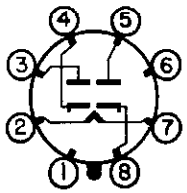
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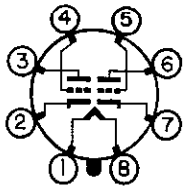
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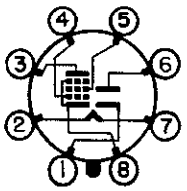
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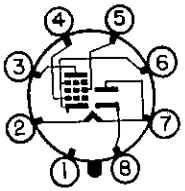
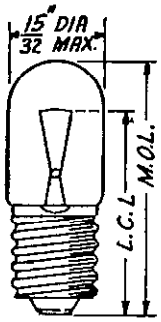

8AV

# PANEL LAMPS

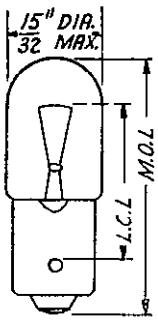
Raytheon Dependable Panel Lamps are of the highest quality and are designed especially to meet the requirements of the renewal market.

| TYPE NO. | VOLTS | AMPS. | APPROX. CANDLE POWER | BULB | BASE | BEAD COLOR | LIGHT CENTER LENGTH | MAX. OVERALL LENGTH | TYPE NO. |
|---|---|---|---|---|---|---|---|---|---|
| 40 | 6-8 | 0.15 | 0.5 | T-3¼ | Min. Screw | Brown | 29/32" | 1⅛" | 40 |
| 40-A | 6-8 | 0.15 | 0.5 | T-3¼ | Min. Bayonet | Brown | 23/32" | 1⅛" | 40-A |
| 41 | 2.5 | 0.5 | 0.5 | T-3¼ | Min. Screw | White | 29/32" | 1⅛" | 41 |
| 42 | 3.2 | 0.5 | 0.75 | T-3¼ | Min. Screw | Green | 29/32" | 1⅛" | 42 |
| 43 | 2.5 | 0.5 | 0.5 | T-3¼ | Min. Bayonet | White | 23/32" | 1⅛" | 43 |
| 44 | 6-8 | 0.25 | 0.8 | T-3¼ | Min. Bayonet | Blue | 23/32" | 1⅛" | 44 |
| 45 | 3.2 | 0.5 | 0.75 | T-3¼ | Min. Bayonet | Green | 23/32" | 1⅛" | 45 |
| 46 | 6-8 | 0.25 | 0.8 | T-3¼ | Min. Screw | Blue | 29/32" | 1⅛" | 46 |
| 47 | SAME CHARACTERISTICS AS 40A, WITH WHICH IT IS INTERCHANGEABLE | | | | | | | | 47 |
| 48 | 2.0 | 0.06 | 0.03 | T-3¼ | Min. Screw | Pink | 29/32" | 1⅛" | 48 |
| 49 | 2.0 | 0.06 | 0.03 | T-3¼ | Min. Bayonet | Pink | 23/32" | 1⅛" | 49 |
| 49-A | 2.1 | 0.12 | 0.07 | T-3¼ | Min. Bayonet | White | 23/32" | 1⅛" | 49-A |
| 50 | 6-8 | 0.2 | 1.0 | G-3½ | Min. Screw | White | 23/32" | 15/16" | 50 |
| 51 | 6-8 | 0.2 | 1.0 | G-3½ | Min. Bayonet | White | ½" | 15/16" | 51 |
| 55 | 6-8 | 0.4 | 1.5 | G-4½ | Min. Bayonet | White | ½" | 1 1/16" | 55 |
| 291 | 2.9 | 0.17 | — | T-3¼ | Min. Bayonet | White | 23/32" | 1⅛" | 291 |
| 292 | 2.9 | 0.17 | 0.3 | T-3¼ | Min. Screw | White | 29/32" | 1⅛" | 292 |
| 292-A | 2.9 | 0.17 | 0.3 | T-3¼ | Min. Bayonet | White | 23/32" | 1⅛" | 292-A |
| 1490 | 3.2 | 0.16 | — | T-3¼ | Min. Bayonet | White | 23/32" | 1⅛" | 1490 |

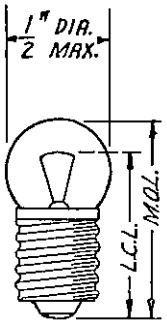
Note: The color of the bead inside the lamp bulb may be used to identify the more common Raytheon types. This information is shown in the column headed "Bead Color."




40
41
42
46
48
292




40A
43
44
45
49
49A
291
292A
1490

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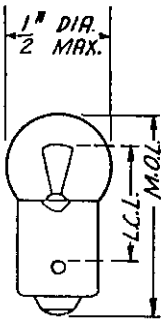


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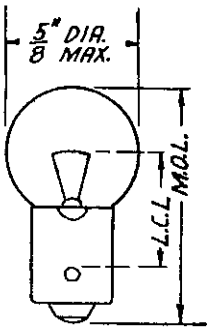
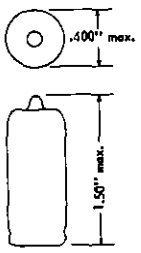



55

RAYTHEON

RAYTHEON

## 3AA

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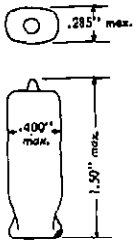
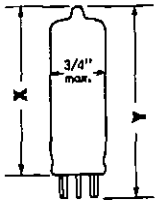
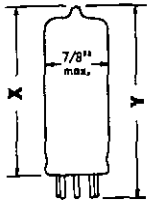



## 5A



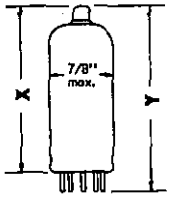

| | X | Y |
|---|---|---|
| 5AA | 1½ | 1¾ |
| 5AB | 1⅜ | 1⅝ |
| 5AC | 1⅞ | 2⅛ |
| 5AD | 2⅜ | 2⅝ |

## 5B



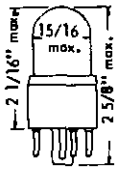

| | X | Y |
|---|---|---|
| 5BA | 1½ | 1¾ |
| 5BB | 1 15/16 | 2 3/16 |
| 5BC | 2⅜ | 2⅝ |
| 5BD | 2¾ | 3 1/16 |

## 5C




| | X | Y |
|---|---|---|
| 5CA | 2 7/16 | 2 11/16 |
| 5CB | 2 9/16 | 2 13/16 |
| 5CC | 2¾ | 3 1/16 |
| 5CD | 2 15/16 | 3 3/16 |

## 7AA

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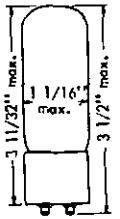
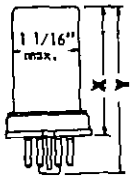
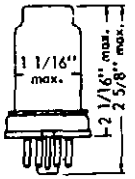



## 8B



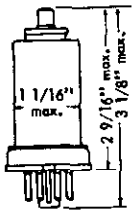

| | X | Y |
|---|---|---|
| 8BA | 1 1/16 | 1⅝ |
| 8BB | 2 1/16 | 2⅝ |

## 8CA




## 8DA

## 8EA

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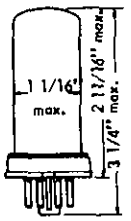
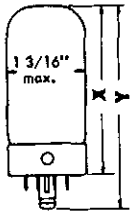
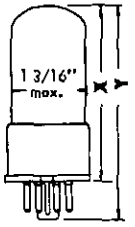



## 9A



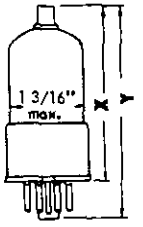

| | X | Y |
|---|---|---|
| 9AA | 1½ | 2 1/32 |
| 9AB | 1¾ | 2 9/32 |
| 9AC | 2¼ | 2 25/32 |
| 9AD | 2⅝ | 3 5/32 |

## 9B



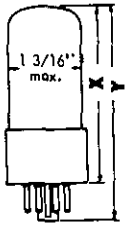

| | X | Y |
|---|---|---|
| 9BA | 2 5/16 | 2⅞ |
| 9BB | 2½ | 3 1/16 |
| 9BC | 2¾ | 3 5/16 |
| 9BD | 2⅞ | 3 7/16 |

## 9C



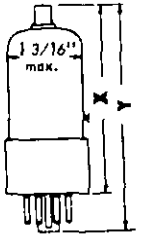

| | X | Y |
|---|---|---|
| 9CA | 2¾ | 3 5/16 |
| 9CB | 3 | 3 9/16 |

## 9D




| | X | Y |
|---|---|---|
| 9DA | 2½ | 3 1/16 |
| 9DB | 2⅞ | 3 7/16 |

## 9E




| | X | Y |
|---|---|---|
| 9EA | 2¾ | 3 15/16 |
| 9EB | 2 15/16 | 3½ |
| 9EC | 3⅛ | 3 11/16 |
| 9ED | 3¾ | 4 5/16 |

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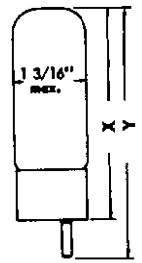
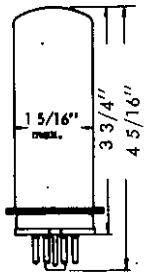
## 9F

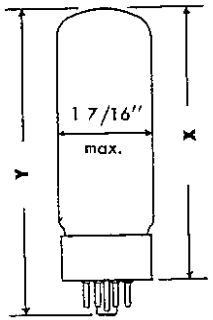



| | X | Y |
|---|---|---|
| 9FA | 1¾ | 2⁵⁄₁₆ |
| 9FB | 3¼ | 3¹³⁄₁₆ |
| 9FC | 3⁷⁄₁₆ | 4 |
| 9FD | 3⁹⁄₁₆ | 4¹¹⁄₁₆ |

## 10AA

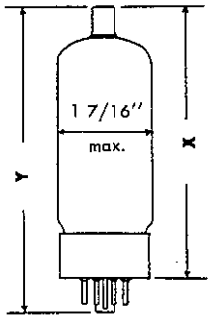



## 11A



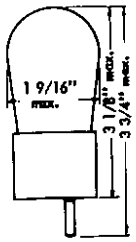

| | X | Y |
|---|---|---|
| 11AA | 2¹⁵⁄₁₆ | 3½ |
| 11AB | 3⁵⁄₁₆ | 3⅞ |
| 11AD | 4¹⁄₁₆ | 4⅝ |

## 11B

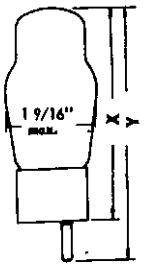



| | X | Y |
|---|---|---|
| 11BB | 3½ | 4¼ |
| 11BC | 3¾ | 4⅝ |
| 11BD | 4¼ | 5 |

## 12AA




## 12B




| | X | Y |
|---|---|---|
| 12BA | 3⁹⁄₁₆ | 4³⁄₁₆ |
| 12BB | 3¹⁵⁄₁₆ | 4⁹⁄₁₆ |

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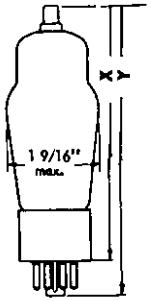
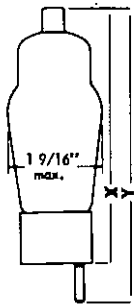
## 12C



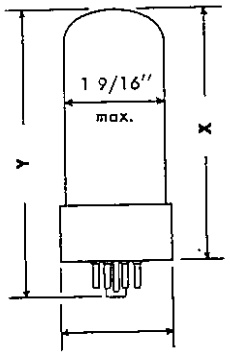

| | X | Y |
|---|---|---|
| 12CA | 3²⁹⁄₃₂ | 4¹⁵⁄₃₂ |
| 12CB | 4⁵⁄₁₆ | 4⅞ |

## 12D



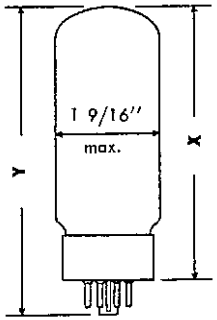

| | X | Y |
|---|---|---|
| 12DA | 3²⁹⁄₃₂ | 4¹⁷⁄₃₂ |
| 12DB | 4⁵⁄₁₆ | 4¹⁵⁄₁₆ |

## 12E



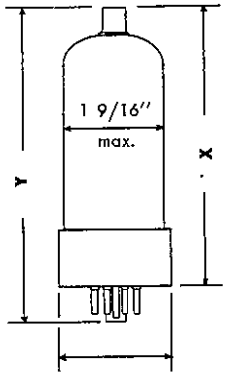

| | X | Y |
|---|---|---|
| 12ED | 4¹⁄₁₆ | 4⅝ |
| 12EE | 4⁷⁄₁₆ | 5 |

## 12G



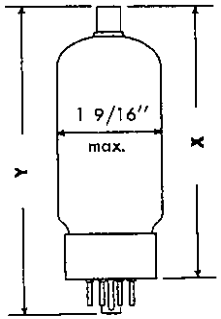

| | X | Y |
|---|---|---|
| 12GB | 3⁵⁄₁₆ | 3⅞ |
| 12GD | 4¹⁄₁₆ | 4⅝ |
| 12GE | 4⁷⁄₁₆ | 5 |

## 12H



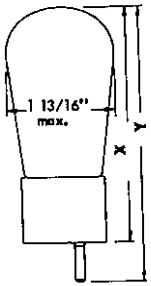

| | X | Y |
|---|---|---|
| 12HD | 4¼ | 5 |
| 12HE | 4⅝ | 5⅜ |

## 12J



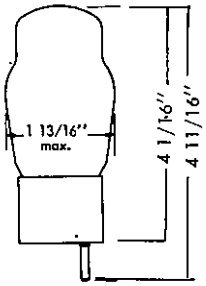

| | X | Y |
|---|---|---|
| 12JC | 3½ | 4¼ |
| 12JD | 3⅞ | 4⅝ |
| 12JE | 4¼ | 5 |

## 14A

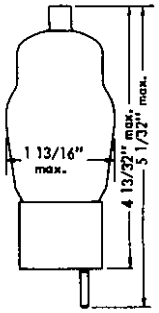



| | X | Y |
|---|---|---|
| 14AA | 3¾ | 4⅜ |
| 14AB | 4¹⁄₁₆ | 4¹¹⁄₁₆ |

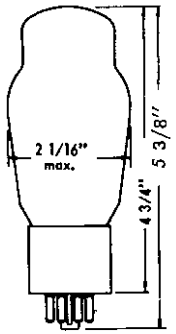
## 14BA



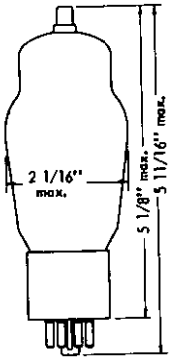

## 14CA



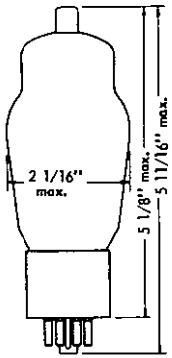

## 16AA



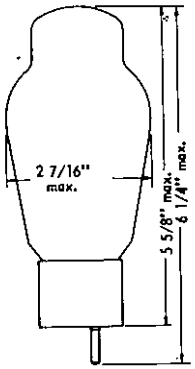

## 16BA



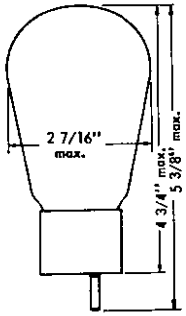

## 16CA




## 19AA




## 19BA



# NOTES

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