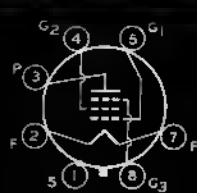
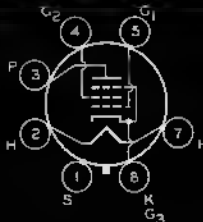


| <br>Type | Description                                                                                                                                                                                                                  |
|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1619</b>                                                                               | Beam Power Tube. Has a fast-heating, coated filament. Useful in equipment requiring quick off-to-on action. Octal 7-pin base. Values shown are for two tubes in class AB <sub>2</sub> service.                               |
| <b>1621</b>                                                                               | Power Pentode. Similar to 6F6. For applications requiring continuity of service. Octal 7-pin base. Values shown are for two tubes.                                                                                           |
| <b>1622</b>                                                                               | Beam Power Tube. Similar to 6L6. For applications requiring continuity of service. Octal 7-pin base. Values shown are for two tubes.                                                                                         |
| <b>1626</b>                                                                               | Low-Mu Triode. For rf oscillator applications requiring stability of characteristics. For renewal use only.                                                                                                                  |
| <b>1629</b>                                                                               | Electron-Ray Tube. Similar to 6E5 except for 12.6-volt heater. Useful as a voltage indicator in aircraft equipment. Octal 7-pin base.                                                                                        |
| <b>1631</b>                                                                               | Beam Power Tube. Similar to 6L6 except for 12.6-volt heater and dissipation ratings. For applications critical as to uniformity of characteristics.                                                                          |
| <b>1632</b>                                                                               | Beam Power Tube. Similar to the 25L6 except for 12.6-volt heater and dissipation ratings. For applications critical as to uniformity of characteristics.                                                                     |
| <b>1635</b>                                                                               | High-Mu Twin Triode. Heater-cathode type. For audio amplifier applications. Octal 8-pin base.                                                                                                                                |
| <b>5618</b>                                                                               | VHF Power Pentode. 7-pin miniature type. Has a center-tapped heater for either 3- or 6-volt operation. Off-to-on action takes only one second. Useful as a frequency multiplier at full ratings up to 100 Mc.                |
| <b>5642</b>                                                                               | Half-Wave Rectifier. Subminiature filamentary type with flexible leads. For use in compact portable equipment requiring high peak inverse voltages.                                                                          |
| <b>5687</b>                                                                               | Medium-Mu Twin Triode. 9-pin miniature type. For general-purpose amplifier applications. Separate base-pin connection for each cathode.                                                                                      |
| <b>5734</b>                                                                               | Mechano-Electronic Transducer. Triode type. For translating mechanical vibration into electrical current variations which can be observed and measured. Flexible leads.                                                      |
| <b>5763</b>                                                                               | VHF Beam Power Tube. 9-pin miniature. For use in compact, low-power mobile transmitters and in low-power stages of fixed station transmitters. Particularly useful in doubler and tripler service. Has unipotential cathode. |
| <b>5881</b>                                                                               | Beam Power Tube. Glass-octal type. For output stages of radio receivers and audio amplifiers particularly in the push-pull stages of high-fidelity audio amplifiers. Octal 7-pin base.                                       |
| <b>6080</b>                                                                               | Low-Mu Twin Triode. Similar to the 6AS7-G, but smaller in size. Intended for applications critical as to shock and vibration, and requiring reduced susceptibility to electrolysis. Octal 8-pin base.                        |
| <b>6417</b>                                                                               | VHF Beam Power Tube. 9-pin miniature type. Identical with 5763 except for 12.6-volt heater.                                                                                                                                  |

For key to terminal connections see page 30.



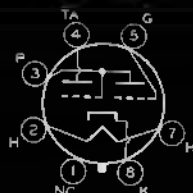
1619



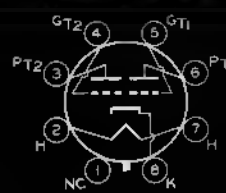
1621 1622 1631 1632



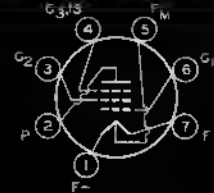
1626



1629



1635



5618

# MISCELLANEOUS TYPES — Cont'd

| Cathode      |                | Maximum Dimensions<br>Inches |                   | Class of Service                          | Maximum Ratings                                                                                                                                                                                           |                         |                        | Operating Conditions and Characteristics |                                                |                                                            |                        |                   |                                                   |                              |                      |                    |      | Type |
|--------------|----------------|------------------------------|-------------------|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|------------------------|------------------------------------------|------------------------------------------------|------------------------------------------------------------|------------------------|-------------------|---------------------------------------------------|------------------------------|----------------------|--------------------|------|------|
|              |                |                              |                   |                                           | Plate Volts                                                                                                                                                                                               | Plate Dissipation Watts | Grid-No. 2 Input Watts | Plate Supply Volts                       | Grid-No. 1 Volts(v) or Cathode Resistance Ohms | Grid-No. 2 Supply Volts                                    | Grid-No. 2 Current Ma. | Plate Current Ma. | AC Plate Resistance Ohms                          | Trans-conductance Micro-mhos | Amplification Factor | Power Output Watts |      |      |
| 2.5          | 2.0            | 4 $\frac{5}{16}$             | 1 $\frac{5}{8}$   | Push-Pull Class AB <sub>2</sub> Amplifier | 400                                                                                                                                                                                                       | 15                      | 3.5                    | 400                                      | -16.5v                                         | 300                                                        | 6.5                    | 75                | Load for Stated Power (Plate-to-Plate), 6000 Ohms |                              |                      | 36                 | 1619 |      |
|              |                |                              |                   | Class C Telephony§                        | 325                                                                                                                                                                                                       | 10                      | 2.5                    | 325                                      | -50v                                           | 285                                                        | 7.5                    | 62                | —                                                 | —                            | —                    | 13                 |      |      |
|              |                |                              |                   | Class C Telegraphy                        | 400                                                                                                                                                                                                       | 15                      | 3.5                    | 400                                      | -55v                                           | 300                                                        | 10.5                   | 75                | —                                                 | —                            | —                    | 19.5               |      |      |
| 6.3          | 0.7            | 3 $\frac{1}{4}$              | 1 $\frac{5}{16}$  | Push-Pull Class A <sub>1</sub> Amplifier  | 300                                                                                                                                                                                                       | 7.9                     | 1.9                    | 300                                      | -30v                                           | 300                                                        | 6.5                    | 38                | Load for Stated Power (Plate-to-Plate), 4000 Ohms |                              |                      | 5.0                | 1621 |      |
| 6.3          | 0.9            | 4 $\frac{5}{16}$             | 1 $\frac{5}{8}$   | Push-Pull Class A <sub>1</sub> Amplifier  | 300                                                                                                                                                                                                       | 13.8                    | 1.4                    | 300                                      | -20v                                           | 250                                                        | 4.0                    | 86                | Load for Stated Power (Plate-to-Plate), 4000 Ohms |                              |                      | 10                 | 1622 |      |
| 12.6         | 0.25           | 4 $\frac{1}{8}$              | 1 $\frac{9}{16}$  | Class C Telegraphy                        | 250                                                                                                                                                                                                       | 5.0                     | —                      | 250                                      | -70v                                           | Driving Power 0.5 Watt Approx.                             |                        | 25                | —                                                 | —                            | 5                    | 4.0                | 1626 |      |
| 12.6         | 0.15           | 4 $\frac{1}{8}$              | 1 $\frac{1}{16}$  | Visual Indicator                          | Plate and Target Supply Volts, 250. Triode Plate Resistor, 1 megohm. At zero grid bias, target ma. = 2, triode plate ma. = 0.2, shadow angle = 90°. At -7.5-volts grid bias, shadow angle = 0°.           |                         |                        |                                          |                                                |                                                            |                        |                   |                                                   |                              |                      |                    | 1629 |      |
| 12.6         | 0.45           | 4 $\frac{5}{16}$             | 1 $\frac{5}{8}$   | Push-Pull Class AB <sub>1</sub> Amplifier | 360                                                                                                                                                                                                       | 16                      | 2.5                    | 360                                      | -22.5v                                         | 270                                                        | 5.0                    | 88                | Load for Stated Power (Plate-to-Plate), 6600 Ohms |                              |                      | 26.5               | 1631 |      |
|              |                |                              |                   |                                           | 360                                                                                                                                                                                                       | —                       | —                      | 360                                      | -22.5v                                         | 270                                                        | 5.0                    | 88                | Load for Stated Power (Plate-to-Plate), 3800 Ohms |                              |                      | 18                 |      |      |
| 12.6         | 0.6            | 3 $\frac{1}{4}$              | 1 $\frac{5}{16}$  | Class A <sub>1</sub> Amplifier            | 117                                                                                                                                                                                                       | 5.0                     | 1.25                   | 110                                      | -7.5v                                          | 110                                                        | 3.0                    | 49                | 13000                                             | 9000                         | —                    | 2.1                | 1632 |      |
| 6.3          | 0.6            | 3 $\frac{5}{16}$             | 1 $\frac{5}{16}$  | Class B Amplifier                         | 300                                                                                                                                                                                                       | 3.0                     | —                      | 300                                      | 0                                              | Plate-to-plate load for power output of 1 tube, 12000 ohms |                        |                   |                                                   |                              |                      | 10.4               | 1635 |      |
| 6.0°<br>3.0° | 0.23°<br>0.46° | 2 $\frac{3}{8}$              | ¾                 | Class A <sub>1</sub> Amplifier**          | 300                                                                                                                                                                                                       | 5.0                     | 2.0                    | 250                                      | -8.0v                                          | 75                                                         | 2.0                    | 19                | —                                                 | 3600                         | —                    | 1.4                | 5618 |      |
|              |                |                              |                   | RF Amp. & Osc. Class C Telegraphy**       | 300                                                                                                                                                                                                       | 5.0                     | 2.0                    | 300                                      | -45v                                           | 75                                                         | 7.0                    | 25                | Approx. driving power, 0.3 watt                   |                              |                      | 4.5 at 80 Mc       |      |      |
|              |                |                              |                   | Tripler to 80 Mc**                        | 300                                                                                                                                                                                                       | 5.0                     | 2.0                    | 300                                      | -125v                                          | 75                                                         | 5.5                    | 25                | Approx. driving power, 0.75 watt                  |                              |                      | 2.7                |      |      |
| 1.25         | 0.2            | 2.38                         | 0.4               | Half-Wave Rectifier                       | Max. Peak Inverse Volts, 10,000<br>Supply Voltage Frequency, 400 Kc Max.                                                                                                                                  |                         |                        |                                          |                                                | Max. DC Plate Ma., 0.25<br>Max. Peak Plate Ma., 5          |                        |                   |                                                   |                              | 5642                 |                    |      |      |
| 6.3<br>12.6  | 0.9<br>0.45    | 2 $\frac{3}{16}$             | ¾                 | Class A <sub>1</sub> Amplifier Each Unit  | 300                                                                                                                                                                                                       | 4.2                     | —                      | 120<br>180<br>250                        | -2.0v<br>-7.0v<br>-12.5v                       | —<br>—<br>—                                                | —<br>—<br>—            | 36<br>23<br>12    | 1560<br>2000<br>3000                              | 11500<br>8500<br>5400        | 18<br>17<br>16       | —<br>—<br>—        | 5687 |      |
| 6.3          | 0.15           | 1.3                          | 0.328             | Measurement of Mechanical Vibration       | 300                                                                                                                                                                                                       | 0.4                     | —                      | 300                                      | 0                                              | —                                                          | —                      | 1.5               | 7200                                              | 275                          | 20                   | —                  | 5734 |      |
| 6.0          | 0.75           | 2 $\frac{5}{8}$              | ¾                 | RF Amplifier Class C Telephony**          | 300                                                                                                                                                                                                       | 12                      | 1.5                    | 300                                      | -42.5v                                         | 250                                                        | —                      | 50                | Approx. Driving Power at 30 Mc. 0.15 Watt         |                              |                      | 10                 | 5763 |      |
|              |                |                              |                   | RF Amp. & Osc. Class C Telegraphy         | 300                                                                                                                                                                                                       | 12                      | 2.0                    | 300                                      | -60v                                           | 250                                                        | —                      | 50                | Approx. Driving Power at 50 Mc. 0.35 Watt         |                              |                      | 7.0                |      |      |
|              |                |                              |                   | Tripler to 175 Mc.                        | 300                                                                                                                                                                                                       | 12                      | 2.0                    | 300                                      | -100v                                          | 300                                                        | 5                      | 35                | Approx. Driving Power, 0.6 Watt                   |                              |                      | 1.3                |      |      |
| 6.3          | 0.9            | 3 $\frac{15}{32}$            | 1 $\frac{1}{16}$  | Class A <sub>1</sub> Amplifier            | 400                                                                                                                                                                                                       | 23                      | 3.0                    | 250<br>350                               | -14v<br>-18v                                   | 250<br>250                                                 | 4.3<br>2.5             | 75<br>53          | 30000<br>48000                                    | 6100<br>5200                 | —<br>—               | 6.7<br>11.3        | 5881 |      |
|              |                |                              |                   | Push-Pull Class AB <sub>1</sub> Amplifier | 400                                                                                                                                                                                                       | 23                      | 3.0                    | 360<br>360                               | -22.5v<br>-22.5v                               | 270<br>270                                                 | 5.0<br>5.0             | 88<br>88          | Load for Stated Power/6500 Ohms/3800 Ohms         |                              |                      | 26.5<br>18         |      |      |
| 6.3          | 2.5            | 4 $\frac{1}{16}$             | 1 $\frac{23}{32}$ | DC Amplifier                              | Maximum Ratings, Absolute Values:<br>Plate Volts, 250<br>Plate Ma., 125<br>Grid-Circuit Resistance for Cathode-Bias Operation, 1 megohm<br>Plate Dissipation, 13 watts<br>Peak Heater-Cathode Volts, ±300 |                         |                        |                                          |                                                |                                                            |                        |                   |                                                   |                              |                      |                    | 6080 |      |
| 12.6         | 0.375          | 2 $\frac{5}{8}$              | ¾                 |                                           | For other characteristics, refer to type 5763                                                                                                                                                             |                         |                        |                                          |                                                |                                                            |                        |                   |                                                   |                              |                      |                    | 6417 |      |

§ Plate modulated.

† Values are for 2 tubes.

⊕ Load for stated power, 2000 ohms.

\* Each unit.

⊖ Excluding flexible leads.

♦ Load for stated power, 2500 ohms.

\*\* Intermittent Commercial and Amateur Service.

⋯ Load for stated power, 12000 ohms.

▲ Load for stated power, 4200 ohms.

⊗ Plate supply volts.

\*\* With a screen resistor of 12500 ohms.

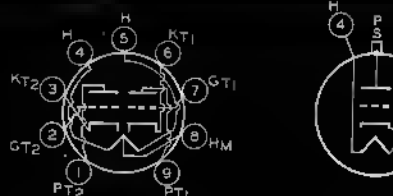
⊗ For plate shaft in undeflected position.

° For series filament arrangement, filament voltage is applied between pins No. 1 and No. 7. The grid-No. 1 voltage is referred to pin No. 1, and grid-No. 3 is connected to pin No. 1.

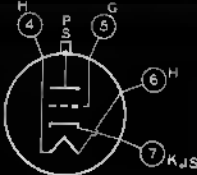
▲ For parallel filament arrangement, filament voltage is applied between pin No. 5 and pins No. 1 and No. 7 connected together. Grid-No. 1 voltage is referred to pin No. 5, and grid-No. 3 is connected to pin No. 5.



5642



5687



5734



5763 6417



5881



6080