POWER TUBES
TRIODES, TETRODES & PENTODES

| TYPE NO. | FILAMENT | | Mu | Max. Diss. Watts | TYPICAL OPERATION | | | | | | MAX. FREQ. mc/sec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | PLATE | | | GRID | | SCREEN | |
| | Volts | Amps | | | Volts DC | Amps DC | Output Watts | Volts DC | Amps DC | Volts DC | Full Input Watts |
| 2C39A | 6.3 | 1.0 | 100 | 100 | 800 | 0.090 | 40 | -40 | 0.030 | - | 2500 |
| 4X150A | 6.0 | 2.6 | 5** | 150 | 1,250 | 0.200 | 195 | -90 | 0.011 | 250 | 500 |
| AX4-125A/4D21 | | | | | | | | | | | (See Tube Type 6155 |
| AX4-250A/5D22 | | | | | | | | | | | (See Tube Type 6156 |
| 4X250B | 6.0 | 2.6 | 5** | 250 | 2,000 | 0.250 | 410 | -90 | 0.012 | 250 | 500 |
| 4X500A | 5.0 | 13.5 | 6.2** | 500 | 4,000 | 0.315 | 835 | -150 | 0.016 | 500 | 120 |
| HF-200 | 10.0 | 4 | 18 | 200 | 2,500 | 0.200 | 380 | -300 | 0.020 | - | 30 |
| HF-201A | 10.5 | 4 | 18 | 200 | 2,500 | 0.200 | 380 | -300 | 0.018 | - | 30 |
| 250-TH | 5.0 | 10.5 | 37 | 250 | 3,000 | 0.333 | 750 | -220 | 0.100 | - | 40 |
| 250-TL | 5.0 | 10.5 | 14 | 250 | 3,000 | 0.350 | 750 | -500 | 0.050 | - | 40 |
| HF-300 | 11.0 | 4 | 23 | 200 | 3,000 | 0.250 | 600 | -400 | 0.028 | - | 20 |
| 450-TH | 7.5 | 12.0 | 38 | 450 | 5,000 | 0.450 | 1,800 | -300 | 0.090 | - | 40 |
| 450-TL | 7.5 | 12.0 | 18 | 450 | 5,000 | 0.450 | 1,800 | -500 | 0.054 | - | 40 |
| 501-R/5759 | 7.5 | 24 | 24 | 1,000 | 3,500 | 0.870 | 2,175 | -250 | 0.133 | - | 150 |
| 502/5760 | 7.5 | 24 | 17 | 1,500 | 3,500 | 0.860 | 2,175 | -450 | 0.150 | - | 150 |
| 502-R/5761 | 7.5 | 24 | 17 | 1,500 | 3,500 | 0.860 | 2,175 | -450 | 0.150 | - | 150 |
| 504R | 7.5 | 24 | 17 | 1,000 | 3,500 | 0.860 | 2,175 | -750 | 0.150 | - | 150 |
| 508/6246 | 30 | 80 | 28 | 25,000 | 15,000 | 3.75 | 40,000 | -900 | 0.420 | - | 40 |
| 750TL | 7.5 | 21 | 15 | 750 | 6,000 | 0.625 | 3,000 | -700 | 105 | - | 40 |
| 805 | 10.0 | 3.25 | 50 | 125 | 1,500 | 0.200 | 215 | -105 | 0.025 | - | 30 |
| 807 | 6.3 | 0.9 | 8** | 25 | 600 | 0.100 | 40 | -45 | 0.004 | 250 | 60 |
| 810 | 10.0 | 4.5 | 36 | 125 | 2,250 | 0.275 | 475 | -160 | 0.010 | - | 30 |
| 813 | 10.0 | 5.0 | 8.5** | 100 | 1,500 | 0.180 | 190 | -70 | 0.006 | 300 | 30 |
| 828 | 10.0 | 3.25 | - | 80 | 1,500 | 0.180 | 200 | -100 | - | 400 | 30 |
| 832-A | 6.3<br>12.6 | 1.6<br>0.8 | 6.5** | 10 | 600 | 0.036 | 35 | -65 | - | 200 | 200 |
| 833-A | 10.0 | 10.0 | 35 | 400 | 4,000 | 0.450 | 1,440 | -200 | 0.075 | - | 30 |
| 838 | 10.0 | 3.25 | 50 | 100 | 1,250 | 0.160 | 150 | -150 | 0.026 | - | 30 |
| 845* | 10.0 | 3.25 | 5.3 | 100 | 1,250 | 0.220 | 105 | -105 | 0.030 | - | 15 |

* Conditions given are for Audio Amplifier Operation.
** Grid No. 2 to Grid No. 1.

NOTE: Typical operation as R-F amplifier and oscillator Class C telegraphy, key down conditions per tube, without modulation for frequencies indicated.

| INTERELECTRODE CAPACITANCE - μμf | | | DESCRIPTION | TYPE NO. |
|---|---|---|---|---|
| G-P | G-F | P-F | | |
| 2.0 | 6.6 | 0.035 | Forced-air cooled triode. UHF oscillator, frequency multiplier or R-F amplifier. Suited to cavity type circuits. Features low interelectrode capacitance, high (closely controlled) transconductance and high plate dissipations. Indirectly heated, oxide coated cathode. | 2C39A |
| 0.03 | 15.7 | 4.3 | Forced-air cooled external anode tetrode. Suited for high power mobile applications. Makes an excellent wide-band amplifier for video application. | 4X150A |
| Pg. 8) | | | | AX4-125A/4D21 |
| Pg. 8) | | | | AX4-250A/5D22 |
| 0.03 | 15.7 | 4.5 | Forced-air cooled external anode tetrode. Brazed radiator. Interchangeable with 4X150A where higher plate dissipation is required. | 4X250B |
| 0.05 | 12.8 | 5.6 | Forced-air cooled external anode tetrode. Useful as power amplifier in FM, TV and VHF communication transmitters. | 4X500A |
| 6.9 | 6.2 | 1.2 | Radiation-cooled triode. Original Amperex design and ruggedness make it ideally suited for R-F heating as well as for broadcasters and amateurs. | HF-200 |
| 7.0 | 8.8 | 1.2 | Radiation-cooled triode, similar to HF-200, with different tube capacitance. Low voltage, high current characteristics. | HF-201A |
| 2.9 | 5.0 | 0.7 | Radiation-cooled high power triode. Used in low powered A-M broadcast stations. Also in electronic heating generators. | 250-TH |
| 3.1 | 3.7 | 0.7 | Radiation-cooled triode. Low mu version of 250-TH. | 250-TL |
| 7.0 | 6.0 | 1.0 | Radiation-cooled triode. Ideally suited for initial equipment and replacement for competitive types. Widely used in R-F heating applications, many commercial, police, and amateur transmitters. | HF-300 |
| 5.0 | 8.8 | 0.8 | Radiation-cooled triode. Very popular in A-M broadcast stations and Government transmitters. Also used in R-F heating applications. | 450-TH |
| 4.5 | 6.8 | 0.8 | Radiation-cooled, medium mu version of 450-TH. | 450-TL |
| 10.0 | 14.0 | 1.3 | Forced-air cooled triode. Low voltage, high current characteristics. Ideal for R-F heating. Has a thoriated-tungsten filament. | 501-R/5759 |
| 10.0 | 14.0 | 1.3 | Water-cooled triode. Thoriated-tungsten filament. Compactness and low voltage, high current make it ideally suitable for R-F heating. | 502/5760 |
| 10.0 | 14.0 | 1.3 | Forced-air version of 502. | 502-R/5761 |
| 10.0 | 14.0 | 1.3 | Forced-air cooled triode similar to AMPEREX 501R minus flexible leads. Interchangeable with 7C26 with very minor circuit changes. | 504R |
| 17.0 | 26.0 | 2.5 | Water-cooled triode. 40 kw output makes it ideally suited as high power R-F heating oscillator and R-F amplifier in A-M transmitters. | 508/6246 |
| 5.8 | 8.5 | 1.2 | Medium mu power triode. Amplifier, oscillator and modulator. | 750TL |
| 6.5 | 6.5 | 6.8 | Radiation-cooled triode. Amperex rugged design makes it the popular choice in R-F and A-F stages of A-M broadcast stations. | 805 |
| 0.2 | 11.0 | 7.0 | Radiation-cooled tetrode. Popular replacement as well as for initial equipment. | 807 |
| 4.8 | 8.7 | 12.0 | Radiation-cooled triode. Thousands of Amperex 810's are used yearly in initial equipment and as direct replacement. | 810 |
| 0.2 | 16.3 | 14.0 | Radiation-cooled low drive beam tetrode. Widely used in A-M broadcasting stations, Government, and amateur service. | 813 |
| .07 | Input 12<br>Output 14 | | Radiation-cooled beam pentode. Used in A-M broadcasting stations throughout world. | 828 |
| .05 | Input 7.5<br>Output 3.8 | | Radiation-cooled twin tetrode. Used in mobile and shipboard transmitters, as well as other communications fields. | 832-A |
| 6.3 | 12.3 | 8.5 | Radiation and forced-air cooled triode used widely in A-M transmitters and also some R-F heating applications. (Refer to AX-9902 data) | 833-A |
| 8.0 | 6.5 | 3.0 | Radiation-cooled zero bias triode. Still popular in amateur, commercial and Government transmitters. | 838 |
| 11.5 | 5.0 | 3.5 | Radiation-cooled triode. Still popular in amateur, commercial and Government transmitters. | 845* |