

## POWER TUBES - TETRODES &amp; PENTODES

| TYPE NO.                                             | FILAMENT |       | Mu<br>Grid #1<br>to<br>Grid #2 | Max.<br>Diss.<br>Watts | TYPICAL OPERATION   |            |                    |             |          |             |  |
|------------------------------------------------------|----------|-------|--------------------------------|------------------------|---------------------|------------|--------------------|-------------|----------|-------------|--|
|                                                      |          |       |                                |                        | PLATE               |            |                    | GRID        |          | SCREEN      |  |
|                                                      | Volts    | Amps  |                                |                        | Volts<br>DC         | Amps<br>DC | Output<br>Watts    | Volts<br>DC | MA<br>DC | Volts<br>DC |  |
| 4-65A                                                | 6        | 3.5   | 5                              | 65                     | 3,000               | 0.115      | 280                | -100        | 5        | 400         |  |
| 4CX250B<br>(all ceramic)<br>4CX250F<br>(all ceramic) | 6        | 2.6   | 5.2                            | 250                    | 2,000               | 0.250      | 390                | -90         | 26       | 250         |  |
|                                                      | 26.5     | 0.56  |                                |                        |                     |            |                    |             |          |             |  |
| 4W300B                                               | 6.0      | 2.9   | 5.2                            | 300                    | 2,000               | —          | 390                | —           | —        | —           |  |
| 4W300BF                                              |          |       |                                |                        |                     |            |                    |             |          |             |  |
| 4X150A                                               | 6.0      | 2.6   | 5                              | 250                    | 1,250               | 0.200      | 140                | -115        | 11       | 280         |  |
| 4X150D                                               | 26.5     | 0.58  |                                |                        |                     |            |                    |             |          |             |  |
| 4X250B<br>(ceramic)                                  | 6.0      | 2.6   | 5.2                            | 250                    | 2,000               | 0.250      | 390                | -90         | 26       | 250         |  |
| 4X250F<br>(ceramic)                                  | 26.5     | 0.56  |                                |                        |                     |            |                    |             |          |             |  |
| 4X500A                                               | 5.0      | 13.5  | 6.2                            | 500                    | 4,000               | 0.315      | 930                | -150        | 16       | 500         |  |
| 4-125A/4D21                                          | 5.0      | 6.5   | 5.9                            | 125                    | 2,500               | 0.200      | 375                | -150        | 12       | 350         |  |
| 4-250A/5D22                                          | 5.0      | 14.5  | 5.1                            | 250                    | 4,000               | 0.312      | 1,000              | -225        | 90       | 500         |  |
| 4-400A                                               | 5.0      | 14.5  | 5.1                            | 400                    | 4,000               | 0.350      | 1,100              | -220        | 18       | 500         |  |
| 807                                                  | 6.3      | 0.9   | 8                              | 25                     | 600                 | 0.100      | 40                 | -45         | 4        | 250         |  |
| 813                                                  | 10       | 5     | 8.5                            | 125                    | 2,000               | 0.18       | 275                | -120        | 10       | 400         |  |
| 828                                                  | 10       | 3.25  | —                              | 70                     | 1,250               | 0.160      | 150                | -95         | 15       | 400         |  |
| 829B                                                 | 12.6     | 1.125 | 9                              | 30                     | 750                 | 0.120      | 65                 | -50         | 8        | 200         |  |
|                                                      | 6.3      | 2.25  |                                |                        |                     |            |                    |             |          |             |  |
| 5894                                                 | 12.6     | 0.9   | 8.2                            | CCS=40<br>ICAS=45      | CCS=600<br>ICAS=750 | 0.200      | CCS=85<br>ICAS=105 | -80         | 5        | 250         |  |
|                                                      | 6.3      | 1.8   |                                |                        |                     |            |                    |             |          |             |  |
| 5895                                                 | 6.3      | 10.68 | 7.5                            | CCS=12<br>ICAS=16      | 600                 | 0.8        | 33.6               | -80         | 2.6      | 200         |  |
|                                                      | 3.15     | 1.36  |                                |                        |                     |            |                    |             |          |             |  |
| 6075                                                 | 6.3      | 33.5  | 7.5                            | 3,000                  | 4,000               | 1.10       | 3,300              | -250        | 70       | 800         |  |
|                                                      | 6.3      | 33.5  | 7.5                            | 3,000                  | 5,000               | 1.10       | 4,100              | -250        | 70       | 800         |  |
| 6076                                                 | 6.3      | 33.5  | 7.5                            | 3,000                  | 4,000               | 1.10       | 3,300              | -250        | 70       | 800         |  |
|                                                      | 6.3      | 33.5  | 7.5                            | 3,000                  | 5,000               | 1.10       | 4,100              | -250        | 70       | 800         |  |
| 6079                                                 | 10.0     | 9.7   | 9.5                            | 500                    | 5,000               | 0.452      | 1,760              | -200        | 30       | 700         |  |
| 6083                                                 | 12.6     | 1.35  | 6.7                            | 45                     | 1,000               | 0.017      | 132                | -120        | 5        | 250         |  |
| 6146                                                 | 6.3      | 1.25  | 4.5                            | CCS=20<br>ICAS=25      | 600                 | 0.112      | 52                 | -58         | 2.8      | 150         |  |
|                                                      |          |       |                                |                        | 750                 | 0.12       | 70                 | -62         | 3.1      | 160         |  |
| 6155                                                 | 5.0      | 6.5   | 6.2                            | 125                    | 2,500               | 0.200      | 375                | -150        | 10       | 350         |  |
| 6156                                                 | 5.0      | 14.1  | 5.1                            | 250                    | 3,000               | 0.345      | 800                | -180        | 10       | 500         |  |
| 6159                                                 | 26.5     | 0.3   | 4.5                            | CCS=20<br>ICAS=25      | 600                 | 0.112      | 52                 | -58         | 2.8      | 150         |  |
|                                                      |          |       |                                |                        | 750                 | 0.12       | 70                 | -62         | 3.1      | 160         |  |
| 6252                                                 | 12.6     | 0.65  | 8.5                            | CCS=20<br>ICAS=25      | 600                 | 0.100      | 42                 | -60         | 1.4      | 250         |  |
|                                                      | 6.3      | 1.3   |                                |                        | 750                 | 0.150      | 79                 | -60         | 2        | 250         |  |
| 6252 USN                                             |          |       |                                |                        |                     |            |                    |             |          |             |  |

<sup>1</sup>A glass seal version of 4X250B (ceramic) is available. See tube Type 6979.

| MAX. FREQ.<br>mc<br>Full Input Watts | INTERELECTRODE<br>CAPACITANCE - $\mu\mu f$ |                                        |            | DESCRIPTION                                                                                                                                                                                                                                                       | TYPE NO.                                             |
|--------------------------------------|--------------------------------------------|----------------------------------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
|                                      | G-P                                        | G-F                                    | P-F        |                                                                                                                                                                                                                                                                   |                                                      |
| 150                                  | 0.08                                       | 8                                      | 2.1        | Convection and radiation cooled tetrode having a fast heating thoriated tungsten filament. Excellent for mobile use.                                                                                                                                              | 4-65A                                                |
| 500                                  | 0.06                                       | 15.7                                   | 4.5        | Forced-air cooled external anode tetrodes with brazed radiator. For airborne and mobile applications extending into the UHF region. Also excellent for single sideband and pulse applications.                                                                    | 4CX250B<br>(all ceramic)<br>4CX250F<br>(all ceramic) |
| 500                                  | 0.06                                       | 17.2                                   | 5.0        | External anode tetrode electrically identical to 4X250B. Anode is water cooled. Designed for applications in which reserve anode dissipation is desirable.                                                                                                        | 4W300B<br>4W300BF                                    |
| 500                                  | 0.03                                       | 16                                     | 4.4        | Forced-air cooled external anode tetrode. Suited for high power mobile applications. Makes an excellent wide-band amplifier for video application.                                                                                                                | 4X150A<br>4X150D                                     |
| 500                                  | 0.06                                       | 15.7                                   | 4.5        | Forced-air cooled external anode tetrodes with brazed radiator. For airborne and mobile applications extending into the UHF region. Also excellent for single sideband and pulse applications.                                                                    | 4X250B<br>(ceramic)<br>4X250F<br>(ceramic)           |
| 120                                  | 0.05                                       | 12.8                                   | 5.6        | Forced-air cooled external anode tetrode. Useful as power amplifier in FM, TV and VHF communication transmitters.                                                                                                                                                 | 4X500A                                               |
| 120                                  | 0.05                                       | 10.8                                   | 3.1        | Radiation and forced-air cooled tetrode. Designed for use as power amplifier, modulator or oscillator.                                                                                                                                                            | 4-125A/4D21                                          |
| 110                                  | 0.12                                       | 12.7                                   | 4.5        | Radiation and forced-air cooled tetrode. Designed for use as RF power amplifier, modulator or oscillator.                                                                                                                                                         | 4-250A/5D22                                          |
| 75                                   | 0.12                                       | 12.5                                   | 4.7        | Radiation and forced-air cooled tetrode. Designed for use as power amplifier, modulator or oscillator at frequencies up to 110 mc.                                                                                                                                | 4-400A                                               |
| 60                                   | 0.2                                        | 11.0                                   | 7.0        | Radiation-cooled tetrode. Popular replacement as well as for initial equipment.                                                                                                                                                                                   | 807                                                  |
| 120                                  | 0.25                                       | 16.3                                   | 14         | Beam power pentode designed for use as an RF amplifier and oscillator.                                                                                                                                                                                            | 813                                                  |
| —                                    | 0.07                                       | 12                                     | 14         | Beam power pentode for use as AF, RF amplifier, modulator                                                                                                                                                                                                         | 828                                                  |
| 250                                  | 0.12                                       | 14.5                                   | 7.0        | Twin-pentode designed for use in push-pull RF amplifier and oscillator applications.                                                                                                                                                                              | 829B                                                 |
| 250                                  | 0.08                                       | Input 6.7<br>Output 2.1<br>(Push-Pull) | 6.7<br>2.1 | Radiation and/or forced-air cooled twin-tetrode of original Amperex design as HF version of conventional 829-B. Makes ideal multiplier, as well as straight amplifier and modulator.                                                                              | 5894                                                 |
| 186                                  | 0.05                                       | Input 5.7<br>Output 1.7<br>(Push-Pull) | 5.7<br>1.7 | Radiation cooled twin, four electrode tube. Designed for use as a radio frequency power amplifier, oscillator, modulator and frequency multiplier. This tube features a directly heated cathode, making it suitable for instant heating applications.             | 5895                                                 |
| 220<br>75                            | —                                          | 24.0<br>24.0                           | 8.5<br>8.5 | Water-cooled low drive, HF tetrode designed for FM and television transmitter power amplifier.                                                                                                                                                                    | 6075                                                 |
| 220<br>75                            | 0.2<br>0.2                                 | 24.0<br>24.0                           | 8.5<br>8.5 | Forced-air cooled external anode version of 6075/AX9907                                                                                                                                                                                                           | 6076                                                 |
| 75                                   | 0.24                                       | Input 25<br>Output 7.2                 | 25<br>7.2  | Radiation and/or forced-air cooled low drive HF tetrode for FM and AM transmitters. Also ideal in screen modulator stages.                                                                                                                                        | 6079                                                 |
| 60                                   | 0.1                                        | 22.5                                   | 11.0       | Radiation-cooled pentode with low voltage — high current characteristics. Powder glass dish type base with short internal lead connections. Up to 150 watts, Class C Telephony, ICAS.                                                                             | 6083                                                 |
| 60                                   | 0.22                                       | 13.5                                   | 8.5        | Beam power tube for use as RF power amplifier, oscillator, frequency multiplier, AF power amplifier or modulator for mobile and fixed equipment. Anode capable of dissipating 25 watts ICAS.                                                                      | 6146                                                 |
| 120                                  | 0.05                                       | 10.8                                   | 3.5        | Convection and forced-air cooled tetrode. "Magnisorb" anode and low drive make it excellent RF amplifier tube in FM broadcasting. Improved version of 4-125A/4D21.                                                                                                | 6155                                                 |
| 75                                   | 0.12                                       | 12.7                                   | 4.5        | Convection and forced-air cooled tetrode. "Magnisorb" anode and low drive characteristics with "sintered" glass base. Improved version of 4-250A/5D22.                                                                                                            | 6156                                                 |
| 60                                   | 0.22                                       | 13.5                                   | 8.5        | Beam power tetrode for use as RF power amplifier, oscillator frequency multiplier, AF power amplifier or modulator for fixed and mobile equipment.                                                                                                                | 6159                                                 |
| 300                                  | —                                          | Input 4.0<br>Output 1.3                | 4.0<br>1.3 | Radiation and/or forced-air cooled twin tetrode of Amperex design. HF version of conventional 832A. Makes ideal multiplier as well as straight amplifier and modulator. Useful up to 700 mc at reduced ratings. Delivers 15 watts at 600 mc under CCS conditions. | 6252<br>6252 USN                                     |