

# PENNSYLVANIA TUBES — AVERAGE CHARACTERISTICS

| Type      | Construction          |                         | Emitter       |          | Note (1) (2)<br>Capacitances in $\mu\mu\text{f}$ . |                |                | Use          | Plate<br>Volts | Negative<br>Grid<br>Volts | Screen<br>Volts | Plate<br>Current<br>Ma. | Screen<br>Current<br>Ma. | Plate<br>Resistance<br>Ohms                      | Transcon-<br>ductance<br>Micromhos | Ampli-<br>fication<br>Factor | Ohms<br>Load<br>for<br>Stated<br>Power<br>Output | Power<br>Output<br>Milli-<br>watts | Type      |
|-----------|-----------------------|-------------------------|---------------|----------|--|----------------|----------------|--------------|----------------|---------------------------|-----------------|-------------------------|--------------------------|--|------------------------------------|------------------------------|--|------------------------------------|-----------|
|           | Bulb Size<br>or Style | Class                   | Base<br>Diag. | Type     | Volts  | Amps.          | Cgp.           |              |                |                           |                 |                         |                          |  |                                    |                              |  |                                    |           |
| 5784      | T-3                   | Pentode                 | 5784          | Cathode  | 6.3  | 0.2            | 0.03m          | 3.9          | 3.0            | 120                       | 5.2             | 3.5                     | 3,200                    | .....  | .....                              | .....                        | .....  | 5784                               |           |
| 5785      | T2x3                  | Diode                   | 5785          | Filament | 1.25   | 0.015          | .....          | .....        | .....          | .....                     | .....           | .....                   | .....                    | .....  | .....                              | .....                        | .....  | 5785                               |           |
| 5814 (3)  | T-3                   | Gas Diode               | 5783          | Cold K   | .....  | .....          | .....          | .....        | .....          | .....                     | .....           | .....                   | .....                    | .....  | .....                              | .....                        | .....  | 5814 (3)                           |           |
| 5814A (3) | T-6½                  | Duotriode               | 9A-0-0        | Cathode  | 6.3  | 0.35/<br>0.175 | 1.5*<br>1.5*   | 1.6*<br>1.6* | 0.5*<br>0.4*   | 100                       | 11.8<br>10.5    | .....                   | .....                    | 6,250 $\downarrow$<br>7,700 $\downarrow$         | 3,100<br>2,200                     | 19.5<br>17.0                 | .....  | .....                              | 5814A (3) |
| 5823      | T-5½                  | Gas Triode              | 4CK-0-0       | Cold K   | .....  | .....          | .....          | .....        | .....          | .....                     | .....           | .....                   | .....                    | .....  | .....                              | .....                        | .....  | 5823                               |           |
| 5824 (3)  | ST-14                 | Pentode                 | 7S-0-0        | Cathode  | 25.0   | 0.3            | .....          | .....        | .....          | 135                       | 61              | 2.5                     | 15,000 $\downarrow$      | 5,000  | .....                              | 1,700                        | 4,300  | 5824 (3)                           |           |
| 5838 (3)  | T-9                   | Duodiode                | 6S-0-0        | Cathode  | 12.0   | 0.60           | .....          | .....        | .....          | .....                     | .....           | .....                   | .....                    | .....  | .....                              | .....                        | .....  | 5838 (3)                           |           |
| 5839 (3)  | T-9                   | Duodiode                | 6S-0-0        | Cathode  | 26.5   | 0.285          | .....          | .....        | .....          | .....                     | .....           | .....                   | .....                    | .....  | .....                              | .....                        | .....  | 5839 (3)                           |           |
| 5840 (3)  | T-3                   | Pentode                 | 8DL-0-0       | Cathode  | 6.3  | 0.15           | 0.15m          | 4.2          | 3.4            | 100                       | 150             | 100                     | 7.5                      | 2.4  | 280,000                            | 5,000                        | .....  | 5840 (3)                           |           |
| 5844      | T-5½                  | Duotriode               | 7BF-0-0       | Cathode  | 6.3  | 0.300          | 2.6*<br>2.6*   | 2.6*<br>2.6* | 0.4*<br>0.4*   | 100                       | 470             | .....                   | .....                    | 7,550 $\downarrow$                               | 3,700                              | 28                           | .....  | 5844                               |           |
| 5845      | T-5½                  | Duotriode               | 5CA-0-0       | Filament | 5.0m   | 0.435          | .....          | .....        | .....          | .....                     | .....           | .....                   | .....                    | .....  | .....                              | .....                        | .....  | 5845                               |           |
| 5847      | T-6½                  | Pentode                 | 9X-0-3 & 4    | Cathode  | 6.3  | 0.3            | 0.4m           | 7.1          | 2.9            | 150                       | 110             | 13                      | 4.5                      | 12,500   | .....                              | .....                        | .....  | 5847                               |           |
| 5851 (3)  | T-3                   | Pentode                 | 6CL-0-0       | Filament | 2.50   | 0.055          | .....          | .....        | .....          | 125                       | 7.5             | 125                     | 5.5                      | 175,000  | 1,600                              | .....                        | .....  | 5851 (3)                           |           |
| 5852 (3)  | T-9                   | Duodiode                | 6S-0-0        | Cathode  | 6.3  | 1.20           | .....          | .....        | .....          | .....                     | .....           | .....                   | .....                    | .....  | .....                              | .....                        | .....  | 5852 (3)                           |           |
| 5871 (3)  | T-9                   | Pentode                 | 7S-0-0        | Cathode  | 6.3  | 0.45           | 0.7*           | 9.5*         | 7.4*           | 250                       | 3               | 100                     | 0.4                      | 2,000,000 $\downarrow$                           | 1,000                              | .....                        | .....  | 5871 (3)                           |           |
| 5879      | T-6½                  | Pentode                 | 9AD-0-0       | Cathode  | 6.3  | 0.15           | 0.11m*         | 2.7          | 2.5            | 250                       | 8               | .....                   | .....                    | 13,700   | 1,530                              | 21                           | .....  | 5879                               |           |
| 5881      | T-11                  | Pentode                 | 7S-0-0        | Cathode  | 6.3  | 0.90           | .....          | .....        | .....          | .....                     | .....           | .....                   | .....                    | .....  | .....                              | .....                        | .....  | 5881                               |           |
| 5889      | T-3                   | Pentode                 | 5889          | Filament | 1.25   | 7.5Me          | .....          | .....        | .....          | .....                     | .....           | .....                   | .....                    | .....  | .....                              | .....                        | .....  | 5889                               |           |
| 5896 (3)  | T-3                   | Duodiode                | 8DJ-0-4       | Cathode  | 6.3  | 0.3            | .....          | .....        | .....          | 100                       | 150             | .....                   | .....                    | .....  | .....                              | .....                        | .....  | 5896 (3)                           |           |
| 5897 (3)  | T-3                   | Triode                  | 8DK-0-0       | Cathode  | 6.3  | 0.15           | 1.3            | 2.4          | 2.4            | 150                       | 180             | .....                   | .....                    | 4,650<br>4,150                                   | 5,800<br>6,500                     | 97<br>27                     | .....  | 5897 (3)                           |           |
| 5898 (3)  | T-3                   | Triode                  | 8DK-0-0       | Cathode  | 6.3  | 0.15           | 0.8            | 1.9          | 2.2            | 100                       | 1500            | .....                   | .....                    | 41,000<br>30,500                                 | 1,700<br>2,300                     | 70                           | .....  | 5898 (3)                           |           |
| 5899 (3)  | T-3                   | Pentode                 | 8DL-0-0       | Cathode  | 6.3  | 0.15           | 0.15m          | 4.4          | 3.4            | 100                       | 120             | .....                   | .....                    | 260,000  | 4,500                              | .....                        | .....  | 5899 (3)                           |           |
| 5900 (3)  | T-3                   | Pentode                 | 8DL-0-0       | Cathode  | 6.3  | 0.15           | 0.15m          | 4.4          | 3.4            | 100                       | 120             | .....                   | .....                    | .....  | .....                              | .....                        | .....  | 5900 (3)                           |           |
| 5901 (3)  | T-3                   | Pentode                 | 8DL-0-0       | Cathode  | 6.3  | 0.15           | 0.15m          | 4.2          | 3.4            | 100                       | 150             | .....                   | .....                    | .....  | .....                              | .....                        | .....  | 5901 (3)                           |           |
| 5902 (3)  | T-3                   | Pentode                 | 8DL-0-0       | Cathode  | 6.3  | 0.45           | 0.20m          | 6.5          | 7.5            | 110                       | 270             | 110                     | 30                       | 2.2  | 15,000                             | 4,200                        | .....  | .....                              | 5902 (3)  |
| 5910      | T-5½                  | Pentode                 | 6AR-0-5       | Filament | 1.4  | 0.05           | 0.08m          | 3.6          | 7.6            | 90                        | 0               | 90                      | 1.6                      | 1,500,000 $\downarrow$                           | 900                                | .....                        | .....  | 5910                               |           |
| 5915      | T-5½                  | Dual Control<br>Heptode | 7CH-0-0       | Cathode  | 6.3  | 0.300          | 0.08*<br>0.35* | 5.4*<br>6.9* | 7.5*           | 1500                      | 0               | 75                      | 5.8<br>0                 | Grid No. 3 Voltage = 0<br>Grid No. 3 Voltage = 0 | .....                              | .....                        | .....  | .....                              | 5915      |
| 5915A (3) | T-5½                  | Dual Control<br>Heptode | 7CH-0-0       | Cathode  | 6.3  | 0.300          | 0.08*<br>0.35* | 5.4*<br>6.9* | 7.5*           | 1500                      | 0               | 75                      | 0                        | Grid No. 3 Voltage = -10                         | .....                              | .....                        | .....  | .....                              | 5915A (3) |
| 5930 (3)  | T-12                  | Triode                  | 4D-0-0        | Filament | 2.5  | 2.5            | .....          | .....        | .....          | .....                     | .....           | .....                   | .....                    | .....  | .....                              | .....                        | .....  | 5930 (3)                           |           |
| 5931 (3)  | T-12                  | Duodiode                | 5T-0-0        | Filament | 5.0  | 3.0            | .....          | .....        | .....          | .....                     | .....           | .....                   | .....                    | .....  | .....                              | .....                        | .....  | 5931 (3)                           |           |
| 5932 (3)  | T-12                  | Beam Amp.               | 7S-0-0        | Cathode  | 6.3  | 0.90           | .....          | .....        | .....          | .....                     | .....           | .....                   | .....                    | .....  | .....                              | .....                        | .....  | 5932 (3)                           |           |
| 5963 (3)  | T-6½                  | Duotriode               | 9A-0-0        | Cathode  | 12.6   | 0.15           | 1.5*           | 1.9*         | 0.5*           | 67.5                      | 0               | .....                   | .....                    | 6,600  | 3,200                              | 21                           | .....  | 5963 (3)                           |           |
| 5964 (3)  | T-5½                  | Duotriode               | 7BF-0-0       | Cathode  | 6.3  | 0.45           | 1.3*           | 2.1*         | 0.4*           | 100                       | 50              | .....                   | .....                    | 6,500  | 6,000                              | 39                           | .....  | 5964 (3)                           |           |
| 5965      | T-6½                  | Duotriode               | 9A-0-0        | Cathode  | 6.3  | 0.45           | 3.0*<br>3.0*   | 4.0*<br>4.0* | 0.5*<br>0.36*  | 150                       | 220             | .....                   | .....                    | 7,000 $\downarrow$                               | 6,700                              | 47                           | .....  | 5965                               |           |
| 5977 (3)  | T-3                   | Triode                  | 8DK-0-0       | Cathode  | 6.3  | 0.15           | 1.3            | 3.2          | 2.2            | 100                       | 270             | .....                   | .....                    | 3,650  | 4,500                              | 16                           | .....  | 5977 (3)                           |           |
| 5987 (3)  | T-3                   | Triode                  | 8DM-0-0       | Cathode  | 6.3  | 0.45           | 3.2            | 3.9          | 5.0            | 100                       | 18              | .....                   | .....                    | .....  | 1,850                              | 4.1                          | .....  | 5987 (3)                           |           |
| 6004      | T-9                   | Duodiode                | 5T-0-0        | Filament | 5.0  | 2.0            | .....          | .....        | .....          | .....                     | .....           | .....                   | .....                    | .....  | .....                              | .....                        | .....  | 6004                               |           |
| 6005 (3)  | T-5½                  | Pentode                 | 7BZ-0-0       | Cathode  | 6.3  | 0.45           | .....          | .....        | .....          | 180                       | 8.5             | 180                     | 2.5                      | 58,000   | 3,700                              | .....                        | 5,500  | 6005 (3)                           |           |
| 6081 (3)  | T-3                   | Duotriode               | 8DG-0-0       | Cathode  | 6.3  | 0.3            | 1.4            | 2.1          | 2.1            | 250                       | 12.5            | 45                      | 4.5                      | 52,000   | 4,100                              | .....                        | 5,000  | 6081 (3)                           |           |
| X6030     | Lock-in               | Diode                   | X6030         | Filament | 3.0m   | 0.6            | .....          | .....        | .....          | .....                     | .....           | .....                   | .....                    | .....  | .....                              | .....                        | .....  | X6030                              |           |
| 6045      | T-5½                  | Duotriode               | 7BF-0-0       | Cathode  | 6.3  | 0.35           | 1.3*           | 2.0*         | 0.8*           | 100                       | 50              | .....                   | .....                    | 5,940 $\downarrow$                               | 6,400                              | 38                           | .....  | 6045                               |           |
| 6049 (3)  | T-3                   | Pentode                 | 8DL-0-0       | Cathode  | 6.3  | 0.150          | 0.009m         | 3.6          | 3.8            | 100                       | 150             | 100                     | 7.5                      | 400,000  | 3,550                              | .....                        | .....  | 6049 (3)                           |           |
| 6052 (3)  | T-3                   | Duodiode                | 8DJ-0-4       | Cathode  | 6.3  | 0.30           | .....          | .....        | .....          | .....                     | .....           | .....                   | .....                    | .....  | .....                              | .....                        | .....  | 6052 (3)                           |           |
| 6053 (3)  | T-3                   | Duodiode                | 8DJ-0-4       | Cathode  | 26.5   | 0.075          | .....          | .....        | .....          | .....                     | .....           | .....                   | .....                    | .....  | .....                              | .....                        | .....  | 6053 (3)                           |           |
| 6055 (3)  | T-3                   | Triode                  | 8DK-0-0       | Cathode  | 26.5   | 0.045          | 1.80*          | 2.20*        | 0.8*           | 26.5                      | Self            | 3.0                     | .....                    | .....  | .....                              | .....                        | .....  | 6055 (3)                           |           |
| 6056 (3)  | T-3                   | Pentode                 | 8DL-0-0       | Cathode  | 26.5   | 0.045          | 0.15m          | 4.0          | 3.4            | 26.5                      | Self            | 2.7                     | 1.1                      | 100,000  | 3,000                              | .....                        | .....  | 6056 (3)                           |           |
| 6110 (3)  | T-3                   | Duodiode                | 8DJ           | Cathode  | 6.3  | 0.15           | .....          | .....        | .....          | .....                     | .....           | .....                   | .....                    | .....  | .....                              | .....                        | .....  | 6110 (3)                           |           |
| 6111 (3)  | T-3                   | Duotriode               | 8DG           | Cathode  | 6.3  | 0.3            | 1.5            | 1.9          | 0.28<br>0.32   | 100                       | 220             | .....                   | .....                    | 4,900  | 4,750                              | 20                           | .....  | 6111 (3)                           |           |
| 6112 (3)  | T-3                   | Duotriode               | 8DG           | Cathode  | 6.3  | 0.3            | 1.0            | 1.7          | 0.23<br>0.28   | 100                       | 1500            | .....                   | .....                    | 38,900   | 1,800                              | 70                           | .....  | 6112 (3)                           |           |