

The Penta Laboratories EL84 is a power amplifier pentode designed for use in the audio frequency power output stage of television and radio receivers and in high fidelity amplifiers.

Electrical Characteristics

| | |
|------------------------------------|-----------------------|
| Cathode | Coated, Uni-potential |
| Heater Voltage | 6.3 Volts |
| Heater Current | 0.76 Amps |
| Heater Warm up time, minimum | 15 sec |
| Interelectrode Capacitances | |
| Anode to Grid 1 | 0.7 pf |
| Anode to all except Grid 1 | 6.0 pf |
| Grid 1 to all except Anode | 11 pf |
| Grid 1 to Heater | 0.25 pf |

Mechanical Characteristics

| | |
|---------------------------|---------|
| Overall Height, max | 78.5 mm |
| Seated Height, max | 71.4 mm |
| Diameter, max | 22.2 mm |
| Base | Noval |
| Socket | PSK9CCM |

Revised 01/04/00

| | |
|---|---|
|  | <p>P E N T A L A B O R A T O R I E S</p> <p>9740 COZYCROFT AVENUE * CHATSWORTH * CALIFORNIA 91311</p> <p>(800) 421-4219 * (818) 882-3872 * FAX: (818) 882-3968</p> |
|---|---|



EL84 Power Pentode

Maximum Ratings

| | | |
|---|-----|------------|
| Plate Voltage | 300 | Volts |
| Plate Dissipation | 12 | Watts |
| Screen Grid Voltage | 300 | Volts |
| Screen Grid Dissipation | 2 | Watts |
| D.C. Cathode Current | 65 | mA |
| Heater - Cathode Voltage | | |
| Heater Positive with Respect to Cathode | 100 | Volts |
| Heater Negative with Respect to Cathode | 100 | Volts |
| Grid 1 Circuit Resistance | | |
| For Fixed Bias | 0.3 | M Ω |
| For Cathode Bias | 1 | M Ω |

Typical Operating Conditions and Characteristics

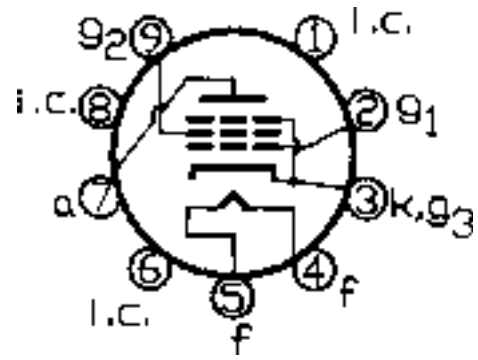
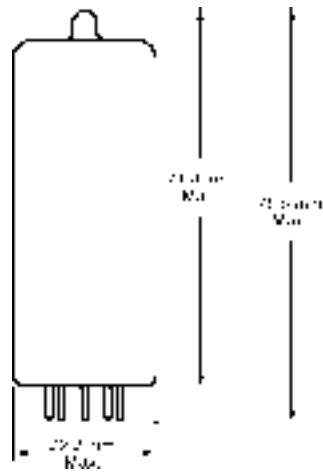
| | | |
|--|--------|------------|
| Plate Voltage | 250 | Volts |
| Screen Grid Voltage | 250 | Volts |
| Grid 1 Voltage (bias) | -7.3 | Volts |
| Plate Resistance (approx) | 40 | k Ω |
| Transconductance | 11,300 | μ mhos |
| Plate Current | 48 | mA |
| Screen Grid Current | 5.5 | mA |
| Amplification Factor (Grid 1 to Screen Grid) | 19.5 | |

Class A₁ Amplifier

| | | |
|--|------|-------|
| Plate Voltage | 250 | Volts |
| Screen Grid Voltage | 250 | Volts |
| Grid 1 Voltage (bias) | -7.3 | Volts |
| Peak AF Grid 1 Voltage | 6.1 | Volts |
| Zero Signal Plate Current | 48 | mA |
| Maximum Signal Plate Current | 49.5 | mA |
| Zero Signal Screen Grid Current | 5.5 | mA |
| Maximum Signal Screen Grid Current | 10.8 | mA |
| Load Resistance | 5200 | Ohms |
| Total Harmonic Distortion (approx) | 10 | % |
| Maximum Signal Power Output | 5.7 | Watts |



EL84 Power Pentode



AVERAGE PLATE CHARACTERISTICS

