The Svetlana™ EL34 is a glass envelope power pentode having a plate dissipation rating of 25 Watts with convection cooling. It is intended for audio frequency power amplification service in either pentode, ultralinear or triode connection and single or push-pull/parallel applications. The Svetlana EL34 has an indirectly-heated oxide cathode, which may be DC operated for the absolute best hum/noise performance.

The Svetlana EL34 plate is made from a laminated material that improves heat transfer and has superior performance under overload conditions which are often seen with guitar amplifiers. Close manufacturing specification tolerances and improved processing provide enhanced reliability and superior sonic performance. The high sensitivity of a pair or quad of Svetlana EL34's is an economical method to achieve high quality sound with a minimum of driving stage components.

The Svetlana EL34 is manufactured with the original Mullard design in the Svetlana factory in St. Petersburg, Russia, and is designed to be a direct replacement for any EL34/6CA7 or equivalent. The Svetlana EL34 gives electrical and audio performance very similar to that of the original Mullard EL34.

**Characteristics**

**Electrical**

**Heater:**
- **Voltage (AC or DC)**: Min. 5.7 V, Nom. 6.3 V, Max. 6.9 V
- **Current**: 1.8 A

**Cathode:** Oxide-coated, unipotential

**Cathode-to-heater potential, max.** 100 V

**Direct interelectrode capacitances, max.***
- Grid no.1 to cathode and grid no.3, grid no.2, base sleeve and heater: <16 pF
- Plate to cathode and grid no.3, grid no.2, base sleeve and heater: <0.8 pF
- Grid no.1 to plate: <1.1 pF

**Mechanical**

**Operating Position** Any

**Base** JEDEC #8ET, octal, 8-pin

**Maximum dimensions:**
- Height: 113 mm (4.45 in.)
- Seated height: 98 mm (3.86 in.)
- Diameter: 32 mm (1.26 in.)

**Cooling** Convection

**Approximate net weight** 60 g (2.1 oz.)

***Without external shielding, nominal values

**AF Power Amplifier**

**Maximum ratings**
- **DC plate voltage**: 800 V
- **Grid no.2 DC (screen) voltage**: 500 V
- **Grid no.1 (control) voltage**: -100 V
- **DC cathode current**: 150 mA
- **Plate dissipation**: 25 W
- **Grid no.2 DC (screen) dissipation**: 8 W
- **Bulb temperature (surface hottest point)** 250˚ C
Typical Operation

AF Power Amplifier, Class A1 (single tube)

- Plate Voltage: 250 V
- Grid 2 Screen Voltage: 250 V
- Grid 1 Control Voltage*: -14 V
- Peak AF Grid 1 Control Voltage: 14 V
- Zero Signal Plate Current: 100 mA
- Maximum Signal Plate Current: 105 mA
- Zero Signal Grid 2 Screen Current (avg): 15 mA
- Transconductance (nominal): 11,000 µS
- Load Resistance: 2000 Ohms
- Output Power at 5% distortion: 10 W

* Approximate Value (set to zero signal plate current)

Typical Performance

EL34 Curves