

# Svetlana EL509 / EL519 / 6KG6

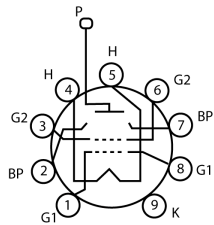
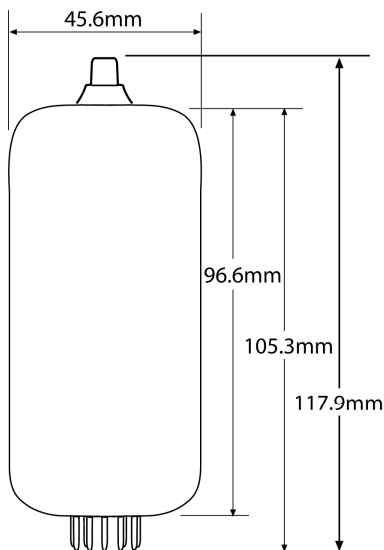
## High Performance Beam Power Tetrode



The Svetlana EL509 is a beam power tetrode intended for use in class A, AB or B audio amplifiers and for class B or C RF amplification. Close manufacturing specification tolerances and improved high voltage processing provides improved reliability and superior performance.

The Svetlana EL509 features: Increased peak cathode emission from new cathode materials; Stable operation from extended processing and aging; Gold-plated grid; Precise grid/screen alignment; Extraheavy glass envelope for ruggedness; Improved vacuum processing; Comprehensive testing before and after aging.

The Svetlana EL509 is manufactured in Russia at the Svetlana factory and is designed to be a direct replacement for any 6KG6 or EL509. The strict manufacturing and quality controls at the Svetlana plant assure functionality and long life.



### Electrical

| Heater                                | Min | Nom | Max    |          |
|---------------------------------------|-----|-----|--------|----------|
| Voltage(AC,DC)                        | 5.7 | 6.3 | 6.9    | V        |
| Current                               |     | 2.5 |        | A        |
| Transconductance(nominal)             |     |     | 18,000 | $\mu S$  |
| Plate resistance(nominal)             |     |     | 8,000  | $\Omega$ |
| Interelectrode capacitances(typical): |     |     |        |          |
| Grid to cathode                       |     |     | 25     | pF       |
| Grid to plate                         |     |     | 2.5    | pF       |

### Maximum Ratings

|                             |       |    |
|-----------------------------|-------|----|
| DC plate voltage            | 900   | V  |
| DC plate voltage, pulsed    | 8,000 | V  |
| Grid2(screen) DC voltage    | 300   | V  |
| DC cathode current          | 500   | mA |
| Plate dissipation           | 35    | W  |
| Grid2 DC screen dissipation | 7     | W  |

### Typical Operation

### Audio Amplifier, Class A1 (single tube)

|                                  |       |          |
|----------------------------------|-------|----------|
| DC plate voltage                 | 500   | V        |
| Grid2(screen) DC voltage         | 280   | V        |
| Grid1(control) voltage           | -82   | V        |
| Peak grid drive                  | 50    | VP-P     |
| Zero signal plate current        | 70    | mA       |
| Max signal plate current         | 100   | mA       |
| Effective load resistance        | 1,650 | $\Omega$ |
| Distortion at 1 watt into 8 ohms | 0.9   | %        |
| Output power at 5% distortion    | 14    | W        |

