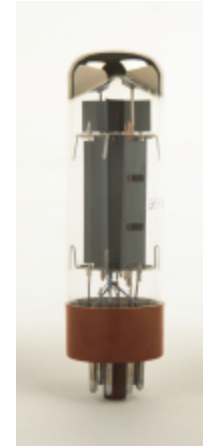




## **EL34** **Power Pentode**

The Svetlana™ EL34 is a glass power pentode having a standard octal base and glass envelope. With a gold-plated molybdenum alloy grid and carbon-coated screen grid, the Svetlana EL34 is the finest power tube of its type being manufactured today. All ratings of the Svetlana EL34 meet or exceed those of the original version; top-quality cathode materials and extensive aging yield outstanding performance in high-fidelity amplifiers. The Svetlana EL34 is made exclusively at the Svetlana Electron Devices factory in St. Petersburg, Russia, and is marketed worldwide by PM Components Ltd. and in the USA by PM of America Inc.



### TYPICAL MECHANICAL AND ELECTRICAL PARAMETERS

|                         |  |
|-------------------------|--|
| Exact replacement for:  | EL34, 6CA7, KT77   |
| Heater:                 | 6.3v AC or DC, 1.63 amps   |
| Cathode:                | oxide-coated high-purity nickel sleeve   |
| Capacitances:           |  |
| control grid to anode   | 1.2 pF   |
| control grid to cathode | 17 pF  |
| Mounting and basing     | std. octal, device operable in any position (keep adjacent tubes separated by 3.5 in. minimum) |
| Height                  | 115 mm (4.5 in)  |
| Diameter                | 33 mm (1.3 in)   |
| Mass                    | 65 g (2.3 oz)  |

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895 B. Street PMB #481  
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## ABSOLUTE MAXIMUM RATINGS

|   |               |
|---|---------------|
| Cathode-heater maximum DC voltage       | + -120v       |
| Allowable spot temperature on envel.    | 250 degrees C |
| Plate voltage, DC (at idle)             | 825 v         |
| Plate voltage, DC, in triode connection | 510 v         |
| Screen voltage, DC, at idle             | 510 v         |
| Control grid voltage, DC, at idle       | -120 v        |
| Cathode current, DC, at idle            | 165 mA        |
| Plate dissipation, peak or idle         | 26 watts      |
| Screen grid dissipation, peak or idle   | 8.5 watts     |
| Control grid resistance, fixed bias     | 200k ohms     |

## TYPICAL OPERATION

Class A one tube, fixed bias

|  |                                    |
|--|------------------------------------|
| Plate voltage                          | 250v DC                            |
| Screen voltage                         | 250v DC (2000 ohm series resistor) |
| Plate current, idle                    | 70 mA                              |
| Grid bias                              | -14.5 v DC                         |
| Load resistance                        | 3000 ohms                          |
| Output power                           | 8 watts                            |
| Total harmonic distortion at 8w output | 10%                                |

Push-pull class B tetrode connection, fixed bias

|                                      |                                   |
|--------------------------------------|-----------------------------------|
| Plate voltage                        | 500v DC                           |
| Screen voltage, both tubes           | 400v DC (750-ohm series resistor) |
| Plate current, idle                  | 60 mA                             |
| Plate current, full power            | 250 mA                            |
| Grid bias                            | -36 v DC                          |
| Load resistance, plate-to-plate      | 4000 ohms                         |
| Output power                         | 70 watts                          |
| Total harmonic distortion at 70w out | 5%                                |

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Push-pull class AB1 ultralinear connection, fixed bias  
Plate voltage 500v DC  
Screen taps 43%  
Plate plus screen current, idle 114 mA  
Plate plus screen current, full power 224 mA  
Grid bias -45v  
Load resistance, plate-to-plate 7000 ohms  
Output power 60 watts  
Total harmonic distortion at 60w out 2.5%

Push-pull class AB1 triode connection, cathode bias  
Plate and screen voltage 400v DC  
Plate plus screen current, idle 130 mA  
Plate plus screen current, full power 142 mA  
Cathode bias resistor, common 220 ohms  
Load resistance, plate-to-plate 5000 ohms  
Output power 16.5 watts  
Total harmonic distortion at 16.5w out 3%

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