

## **Electron tube type EL84 / 6BQ5**

### Miniature Power Pentode

The EL84 is an output pentode designed for application in medium power high fidelity and musical instrument amplifiers. The true pentode characteristics of this tube reduce distortion at low instantaneous anode voltages which allow larger AC swings and increased undistorted output as compared with beam power tubes in the same power class.

### STATIC VALUES

Cathode - coated unipotential.

Heater - 6.3 volts at .76 amps AC or DC

Max diameter - 22 mm

Max height - 78.5 mm; 71.4 mm seated

Life-time guarantee - 1,000 hours minimum

# AMPEREX TUBE TYPE 6BQ5/EL84

The 6BQ5/EL84 is an output pentode designed for application in medium power Hi-Fi amplifiers. A pair of tubes in Class AB, push-pull conventional operation yields an output of up to 17 watts at 4% distortion (without feedback). In single-ended operation a power output of 5.7 watts can be obtained.

The true pentode characteristics of this tube reduce distortion at low instantaneous plate voltages which allow larger A.C. swings and increased undistorted output as compared with beam power tubes in the same power class.

## GENERAL CHARACTERISTICS

### ELECTRICAL

Cathode	coated unipotential
Heater Voltage	6.3 volts
Heater Current	0.76 amps.
Direct Interelectrode Capacitances	
Grid No. 1 to all elements except plate	10.8 $\mu\text{f}$
Plate to all other elements except Grid No. 1	6.5 $\mu\text{f}$
Plate to Grid No. 1	0.5 $\mu\text{f}$
Grid No. 1 to heater	0.25 $\mu\text{f}$
Characteristics	
Plate Voltage	250 volts
Grid No. 2 Voltage	250 volts
Plate Current	48 mA
Grid No. 2 Current	5.5 mA
Grid No. 1 Voltage	- 7.3 volts
Transconductance	11,300 micromhos
Plate Resistance	40 $\text{K}\Omega$
Amplification Factor (Grid No. 1 to Grid No. 2)	19.5

### MECHANICAL

Base	Small button, 9 pin, RETMA # 9CV
Max. Overall Length	3 1/16 inches
Max. Seated Height	2 13/16 inches
Max. Diameter	7/8 inches
Mounting Position	any

### MAXIMUM RATINGS (Design Center Values)

Plate Voltage	300 volts
Plate Dissipation	12 watts
Grid No. 2 Voltage	300 volts
Grid No. 2 Dissipation (zero signal)	2.0 watts
Grid No. 2 Dissipation (max. signal)	4.0 watts
Cathode Current	65 mA
Grid Resistance (cathode bias)	1.0 $\text{M}\Omega$
Grid Resistance (fixed bias)	300 $\text{K}\Omega$
Filament to Cathode Voltage	100 volts

