ELECTRONIC TUBE REFERENCE

6BE8A

Voltage - Triode Pentode electronic tube

CONSOLIDATED TECHNICAL DATA
2 SECTIONS
CONSTRUCTION
PENTODE-TRIODE

Miniature medium-mu triode and sharp-cutoff pentode for VHF oscillator-mixer frequency conversion, with controlled heater warm-up.

General characteristics

BASE DESIGNATION	–	**BASE PINS**	9
NOMINAL HEATER	6.3 V / 450 mA	**PARALLEL HEATER**	– / –
HEATING	Indirect	**SERIES OPERATION**	Capable
CATHODE ARRANGEMENT	Separate cathodes	**SECTION CONSTRUCTION**	Dissimilar

Section ratings

SECTION1 Triode

PLATE RESISTANCE	5000 Ω
TRANSCONDUCTANCE	0.008 S
AMPLIFICATION FACTOR	40
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	2.5 W

Sylvania 6BE8A triode oscillator section; manufacturer states electrically identical to 6BE8 except controlled heater warm-up about 11 s for 6.3 V 450 mA series-string TV service. Physical triode and sharp-cutoff pentode are separate sections. This triode maximum plate 300 V and dissipation 2.5 W; typical at plate 150 V, cathode resistor 56 Ω, current 18 mA, mu 40, gm 8000 µmhos (0.008 S), rp approximately 5000 Ω. Triode cathode connects internally to pentode suppressor grid and shield. Manufacturer 9EG basing and interelectrode capacitances.

SECTION2 Pentode

PLATE RESISTANCE	400000 Ω
TRANSCONDUCTANCE	0.0052 S
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	2.8 W
MAXIMUM SCREEN DISSIPATION	0.5 W

Sylvania 6BE8A pentode mixer section electrically identical to 6BE8 except controlled approximately 11-second heater warm-up in 6.3 V 450 mA series-string TV service. Design-center maximum plate 300 V, plate dissipation 2.8 W, screen dissipation 0.5 W; grid-2 SUPPLY up to 300 V with actual screen electrode voltage constrained by manufacturer rating chart (not promoted to unconditional max_screen_voltage). Typical at plate 250 V, screen 110 V and cathode resistor 68 Ω: plate 10 mA, screen ~3.5 mA, gm 5200 µmhos (0.0052 S), rp 400 kΩ. Pentode suppressor grid No.3 and internal shield internally tied to separate triode cathode; manufacturer 9EG basing and capacitances.

Miniature medium-mu triode and sharp-cutoff pentode for VHF oscillator-mixer service, with controlled heater warm-up time.

SOURCE OPERATING CONDITIONS

1950 Sylvania

SOURCE PDF

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1950 SYLVANIA

Section 2 · Pentode

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Heater Voltage 6¢3 Volts oscllllator mixer. The	**3 V**	Heater Voltage 6¢3 Volts oscllllator mixer. The
Heater Current 1 450 Ma basing is unique in that the	**450 mA**	Heater Current 1 450 Ma basing is unique in that the

TUBE TINKER

An independent reference for electronic tubes, vacuum tubes, and their source documents.

Catalog Tube types Full books Blog Feedback & corrections

© 2026 Tube Tinker