



ELECTRONIC TUBE REFERENCE

1232

Voltage Pentode - Sharp Cutoff (single) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
PENTODE

Sylvania triple-grid amplifier pentode with published operating characteristics and interelectrode capacitances. Manufacturer data establish conventional signal-amplifier service without sufficiently explicit evidence for a stronger functional category.

GENERAL CHARACTERISTICS

BASE DESIGNATION	8-V	BASE PINS	8
NOMINAL HEATER	7 V / 480 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Pentode	
PLATE RESISTANCE	800000 Ω
TRANSCONDUCTANCE	0.0045 S
MAXIMUM PLATE DISSIPATION	1.5 W
MAXIMUM SCREEN DISSIPATION	0.2 W
<i>Sylvania 1232 loctal eight-pin shielded triple-grid RF/TV amplifier pentode. Nominal heater specified as 7.0 V 0.48 A, with 6.3 V 0.45 A in operating-characteristic tables (7 V nominal relates to 130 V mains service). Typical pentode conditions: anode 250 V, screen 100 V, control grid -2 V, anode 6 mA, screen 2 mA, gm 4500 μmhos, plate resistance $\sim$800 kΩ. Maximum anode dissipation 1.5 W and screen dissipation 0.2 W already stored. Additional internal shielding, capacitances and short loctal electrode leads characterize this type.</i>	

1232 — High-Mu Triple-Grid Loktal Amplifier

The **1232** is a high-transconductance triple-grid amplifier tube designed for use in television receivers and high-frequency amplification circuits. Featuring a compact Loktal construction, the tube provides

robust shielding and physical locking, making it highly suitable for demanding high-frequency applications.

Construction and Physical Characteristics

The 1232 is housed in a **T9-G** glass bulb and utilizes an **8-pin Loktal (8-V)** base. The Loktal design ensures a compact form factor, excellent shielding, and a secure mechanical lock in its socket. The tube is designed to operate in **any mounting position**.

Internally, the 1232 is a triple-grid tube that shares similarities with the type [1231](#). However, the 1232 incorporates additional internal shielding. To accommodate this extra shielding, both the physical construction and the electrical characteristics of the tube have been specifically adjusted.

Heater Ratings

The 1232 can be operated under nominal or specific active operating conditions. The heater is designed for either alternating current (AC) or direct current (DC) operation.

- **Nominal Ratings:** 7.0 V at 0.48 A. Under AC service, this nominal 7.0 V rating corresponds to a standard 130 V line supply.
- **Active Operating Conditions:** 6.3 V at 0.45 A.

Electrical Characteristics and Operating Points

The 1232 is characterized by high mutual conductance relative to its operating current. Typical operating parameters and maximum ratings are defined as follows:

Typical Operating Conditions

Parameter	Value
Heater Voltage	6.3 V
Heater Current	0.45 A
Plate Voltage	250 V
Suppressor Grid Voltage	Connected to cathode
Screen Grid Voltage	100 V
Control Grid Voltage	-2 V
Plate Current	6.0 mA
Screen Grid Current	2.0 mA
Internal Resistance (Approximate)	800,000 Ω

Parameter	Value
Mutual Conductance (Transconductance)	4,500 μmhos
Grid Voltage for Cathode Current Cutoff	-6 V (approximate)

Maximum Dissipation Ratings

- **Maximum Plate Dissipation:** 1.5 W
- **Maximum Screen Grid Dissipation:** 0.2 W

Interelectrode Capacitances

When measured with a standard tube shield, the direct interelectrode capacitances of the 1232 are:

Connection	Capacitance
Grid to Plate (Maximum)	0.007 μF
Input: Grid to (Heater + Cathode + Screen + Suppressor + Shield)	9.0 μF
Output: Plate to (Heater + Cathode + Screen + Suppressor + Shield)	7.0 μF

Applications

The 1232 is primarily designed for television amplifiers and other high-frequency applications requiring high mutual conductance. Due to its high mutual conductance per milliamperere, the tube is exceptionally well-suited for receiver circuits featuring a wide range of high-frequency (RF) amplification. In these designs, the antenna system should be configured to prevent the application of excessive RF voltages to the control grid (Grid No. 1).



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1950 Sylvania

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

1950 SYLVANIA

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	250 V	—
Screen Voltage	100 V	—