The 6AM4 is a miniature high-mu triode designed for use as a grounded-grid mixer or amplifier in television receivers that operate in the ultra-high-frequency region. Its sharp-cutoff and high transconductance, coupled with its excellent isolation between input and output, make the 6AM4 well suited for grounded-grid mixer or amplifier service over the entire range of VHF-UHF television frequencies.

**GENERAL**

**ELECTRICAL**
Cathode—Coated Unipotential
Heater Voltage, AC or DC ........................................ 6.3 Volts
Heater Current .................................................. 0.225 Amperes
Direct Interelectrode Capacitances 
- Plate to Cathode .......................................... 0.16 μμf
- Cathode to Grid and Heater ............................ 4.6 μμf
- Plate to Grid and Heater ................................. 2.8 μμf
- Heater to Cathode ........................................ 1.8 μμf

**MECHANICAL**
Mounting Position—Any
Envelope—T-6½, Glass
Base—E9-1, Small Button, 9-Pin

**MAXIMUM RATINGS**

**DESIGN-CENTER VALUES**
- Plate Voltage ............................................... 200 Volts
- Positive DC Grid Voltage .................................. 0 Volts
- Plate Dissipation ......................................... 2.0 Watts

**Heater-Cathode Voltage**
- Heater Positive with Respect to Cathode .......... 80 Volts
- Heater Negative with Respect to Cathode † ........ 80 Volts

**PHYSICAL DIMENSIONS**

Supersedes ET-T806, dated 5-52
CHARACTERISTICS AND TYPICAL OPERATION

CLASS A1 AMPLIFIER

Plate Voltage .............................................. 200 Volts
Cathode-Bias Resistor .................................. 100 Ohms
Amplification Factor .................................... 85
Plate Resistance, approximate ......................... 8700 Ohms
Transconductance ....................................... 9800 Micromhos
Plate Current ............................................ 10 Milliamperes

Grid Voltage, approximate
Ib = 10 Microamperes ..................................... −6.5 Volts

* With external shield (RETMA 315) connected to grid.
† When the tube is used in a cascode amplifier with a second tube and the two tubes are connected in series, this voltage may be as high as 250 volts maximum under cutoff conditions.

Note: When the 6AM4 is used in grounded-grid operation at high frequencies, all five grid terminals should be grounded to minimize the effects of grid-lead inductance.

AVERAGE CHARACTERISTICS

$E_f = \text{RATED VALUE}$
$E_B = 200 \text{ VOLTS}$

[Graph showing the relationship between plate current and various characteristics such as amplification factor, plate resistance, transconductance, and plate current in milliamperes.]