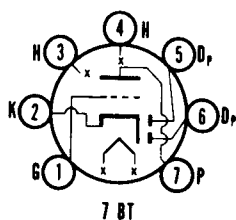


# SYLVANIA TYPE 12AJ6



## MECHANICAL DATA

Bulb.....	T-5½
Base.....	E7-1, Miniature Button 7-Pin
Outline.....	5-2
Basing.....	7BT
Cathode.....	Coated Unipotential
Mounting Position.....	Any

## ELECTRICAL DATA

### HEATER CHARACTERISTICS

Heater Voltage <sup>1</sup> .....	12.6 Volts
Heater Current.....	150 Ma
Heater-Cathode Voltage (Design-Center Values)	
Heater Negative with Respect to Cathode.....	30 Volts Max.
Heater Positive with Respect to Cathode.....	30 Volts Max.

### DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

Grid to Plate.....	2.0 μμf
Input: g to (h + k).....	2.2 μμf
Output: p to (h + k).....	0.8 μμf
Diode to Diode.....	0.9 μμf

### RATINGS (Design-Center Values)

Plate Voltage.....	30 Volts Max.
Cathode Current.....	20 Ma Max.
Grid Circuit Resistance.....	10 Megohms Max.
Average Diode Current.....	1.0 Ma Max.

### CHARACTERISTICS AND TYPICAL OPERATION

#### Class A<sub>1</sub> Amplifier

Plate Voltage.....	12.6 Volts
Grid Voltage.....	0 Volts
Plate Current.....	750 μa
Transconductance.....	1200 μmhos
Amplification Factor.....	55
Plate Resistance.....	45,000 Ohms
Average Diode Current with 10 Volts Applied (Each Diode) <sup>2</sup> .....	2.0 Ma

#### Resistance Coupled Amplifier

Plate Supply Voltage.....	12.6 Volts
Grid Voltage <sup>3</sup> .....	
Grid Resistor.....	1.0 Megohm
Plate Load Resistor.....	1.0 Megohm
Input Capacitor.....	0.02 μf
Output Capacitor.....	0.01 μf
Grid Resistor of Following Stage.....	2.0 Megohms
Voltage Gain at 400 CPS <sup>4</sup> .....	16

### NOTES:

1. This tube is intended for use in automobile radios operated from a nominal 12 volt battery. Design of the tube is such that the heater will operate satisfactorily over the range 10.0 volts to 15.9 volts, and that the maximum ratings provide a safety factor for the wide voltage variation encountered with this type of supply.
2. Test condition only.
3. Average contact potential developed across specified grid resistor.
4. Measured at an output voltage of 1.0 volt RMS.

## APPLICATION NOTES

The Sylvania Type 12AJ6 is a miniature double diode, high-μ triode intended for use as a second detector audio amplifier.

It is designed for operation where the heater and plate voltages are supplied directly from a 12-volt automotive storage battery.

# SYLVANIA TYPE 12AJ6 (Cont'd)

## AVERAGE PLATE CHARACTERISTICS

