



# Sylvania Type 7N7

MEDIUM-MU DUOTRIODE  
GT EQUIVALENT 6SN7GT

## PHYSICAL SPECIFICATIONS

Base.....	Lock-In 8 Pin
Bulb.....	T-9
Maximum Overall Length.....	3 <sup>5</sup> / <sub>32</sub> "
Maximum Seated Height.....	2 <sup>5</sup> / <sub>8</sub> "
Mounting Position.....	Any

## RATINGS

Heater Voltage AC or DC (Nominal).....	7.0 Volts
Heater Current (Nominal).....	0.640 Ampere
Maximum Plate Voltage.....	300 Volts
Maximum Plate Dissipation per Section.....	2.5 Watts
Maximum Heater-Cathode Voltage.....	90 Volts
Minimum Grid Voltage.....	0 Volt

### Direct Interelectrode Capacitances:\*

	T1†	T2†
Grid to Plate.....	3.0	3.0 μmf.
Input.....	3.4	2.9 μmf.
Output.....	2.0	2.4 μmf.
Plate 1 to Plate 2.....	0.34	μmf.
Grid 1 to Grid 2.....	0.40	μmf.
Grid 1 to Plate 2.....	0.08	μmf.
Grid 2 to Plate 1.....	0.06	μmf.

\*With 1<sup>5</sup>/<sub>16</sub>" diameter shield (RMA Std. M8-308) connected to cathode.

†Triode No. 1 connected to pins 5, 6 and 7; Triode No. 2 to pins 2, 3 and 4.

## TYPICAL OPERATION

### CLASS A<sub>1</sub> AMPLIFIER

Heater Voltage (AC or DC).....	6.3	6.3 Volts
Heater Current.....	0.600	0.600 Ampere
Plate Voltage.....	90	250 Volts
Grid Voltage.....	0	-8 Volts
Self-Bias Resistor.....	0	900 Ohms
Plate Current.....	10.0	9.0 Ma.
Plate Resistance.....	6700	7700 Ohms
Mutual Conductance.....	3000	2600 μmhos
Amplification Factor.....	20	20

### PHASE INVERTER

Plate Supply Voltage.....	100	250 Volts
Grid Voltage.....	-2.25	-5.5 Volts
Plate Current per Section.....	1.5	2.4 Ma.
Plate Resistor.....	30000	50000 Ohms
Self-Bias Resistor.....	750	1150 Ohms
Maximum Output Voltage (RMS).....	20	65 Volts

## APPLICATION

Sylvania Type 7N7 is a single-ended double triode with separate cathodes for each section. It is designed for use as a phase inverter or voltage amplifier. The 7N7 is identical to two Type 7A4 tubes and reference is made to that type for curves, and resistance coupled data on page 46. Type 6SN7GT is the octal based equivalent.

# 7N7 (Cont.)

