

# SYLVANIA ELECTRIC

## RMA Registration Data

### TYPE 5898

#### TRIODE

The Type 5898 is a subminiature high-mu triode capable of operation in the uhf region. This type is characterized by long life and stable performance. It is designed for service where severe conditions of mechanical shock and vibration are encountered, and it is suitable for high operating temperatures.

#### MECHANICAL DATA

##### GENERAL

Style.....	subminiature
Cathode.....	coated, unipotential
Bulb.....	T-3
Base..... K8-1(1)	Subminiature Button--Flexible Leads
Outline.....	3-1
Maximum Bulb Diameter.....	0.400 inch
Maximum Overall Bulb Length.....	1.375 inches
Minimum Lead Length.....	1.500 inches
Mounting Position.....	any
Basing.....	8DK
<i>Lead Connections:</i>	
Lead 1 .. grid	Lead 5 .. cathode
Lead 2 .. no connection	Lead 6 .. heater
Lead 3 .. heater	Lead 7 .. no connection
Lead 4 .. no connection	Lead 8 .. plate

##### RATINGS(2)

Maximum Impact Acceleration (3).....	450 G
Maximum Uniform Acceleration (4).....	1,000 G
Maximum Vibrational Acceleration for Extended Periods (5).....	2.5 G

#### ELECTRICAL DATA

##### GENERAL

<i>Direct Interelectrode Capacitances:</i>		
Grid to Plate.....	0.70	$\mu\mu\text{f}$
Input.....	2.40	$\mu\mu\text{f}$
Output.....	0.60	$\mu\mu\text{f}$
Heater Voltage (ac or dc).....	6.3	volts
Heater Current.....	150	milliamps

##### RATINGS(2) -- Absolute System

Heater Voltage (ac or dc)(6).....	6.3 ( $\pm 10\%$ )	volts
Maximum Plate Voltage (dc).....	165	volts
Maximum Plate Dissipation.....	0.55	watts
Maximum Heater-Cathode Voltage.....	$\pm 200$	volts

(See Page 2 for all notes.)

**TYPE 5898**

CHARACTERISTICS

*Conditions:*

Heater Voltage (ac or dc).....	6.3	volts
Plate Voltage (dc).....	150	volts
Cathode Resistor.....	680	ohms
Plate Current.....	1.7	milliamps
Transconductance.....	2,700	micromhos
Amplification Factor.....	70	
Grid Voltage for 10 $\mu$ amps Plate Current.....	-6.0	volts
Noise Output Voltage, maximum (7).....	50	millivolts
Life Expectancy, at 180 °C Maximum Bulb Temperature...	5,000	hours
Life Expectancy, at 250 °C Maximum Bulb Temperature...	1,500	hours

- (1) *With 1.500 inches Minimum Lead Length as specified above.*
- (2) *Limitations beyond which normal tube performance and tube life may be impaired.*
- (3) *Forces in any direction as applied by the NRL Impact Machine for Electronic Devices, or equivalent.*
- (4) *Forces in any direction applied gradually, as in centrifuge.*
- (5) *Vibrational forces in any direction at 60 cycles per second for a period exceeding 100 hours.*
- (6) *Tube life and reliability of performance are directly related to the degree of regulation of the heater voltage to its center-rated value of 6.3 volts.*
- (7) *Across plate resistor of 10,000 ohms, with applied vibrational acceleration of 15 G.*