

SYLVANIA ELECTRIC

RMA Registration Data

TYPE 5897

TRIODE

The Type 5897 is a subminiature medium-mu triode capable of operation in the uhf region. This type is characterized by long life and stable operation. 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	1.40	$\mu\mu\text{f}$
Input	2.20	$\mu\mu\text{f}$
Output	0.7	$\mu\mu\text{f}$
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 Current	22	milliamps
Maximum Grid Current	5.5	milliamps
Maximum Plate Dissipation	3.3	watts
Maximum Heater-Cathode Voltage	± 200	volts

(See Page 2 for all notes.)

TYPE 5897

CHARACTERISTICS

Conditions:

Heater Voltage (ac or dc)	6.3	volts
Plate Voltage (dc).....	100	volts
Cathode Resistor	150	ohms
Plate Current	8.5	milliamps
Transconductance	5,800	micromhos
Amplification Factor	27	
Grid Voltage for 10 μ amps Plate Current	-7.0	volts
Noise Output Voltage, maximum ⁽⁷⁾	100	millivolts
Life Expectancy, at 180 °C Maximum Bulb Temperature	5,000	hours
Life Expectancy, at 250 °C Maximum Bulb Temperature	1,500	hours

TYPICAL OPERATION -- RF Oscillator

Heater Voltage (ac or dc)	6.3	volts
Plate Voltage (dc)	150	volts
Plate Current	20	milliamps
Frequency	500	megacycles
Power Output	0.9	watts

- (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.*