SYLVANIA ELECTRIC

RTMA Registration Data

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TYPE 6053

DOUBLE DIODE

The Type 6053 is a subminiature double diode 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.

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	8DJ-O-4

Lead Connections:

Lead 1 .. #2 diode plate	Lead 5 .. #1 diode plate
Lead 2 .. #2 diode cathode	Lead 6 .. heater
Lead 3 .. heater	Lead 7 .. #1 diode cathode
Lead 4 .. internal shield	Lead 8 .. no connection

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

Direct Interelectrode Capacitances:[6]		
Plate to Plate, maximum	0.026	μμf
Input (each section): Plate to Cathode, Heater, Internal Shield and External Shield	3.4	μμf
Cathode to Heater, Plate, Internal Shield, and External Shield (each section)	4.6	μμf
Resonant Frequency, minimum	900	megacycles
Heater Voltage (ac or dc)	26.5	volts
Heater Current	75	milliamps

RATINGS[2] -- *Absolute System*

Heater Voltage (ac or dc)[7]	26.5 (±5%)	volts
Maximum Inverse Peak Plate Voltage	460	volts
Maximum Peak Plate Current (each plate)	60	milliamps
Maximum Output Current (dc) (each plate)	10	milliamps
Maximum Heater-Cathode Voltage	±360	volts

(See Page 2 for notes.)

TYPE 6053

CHARACTERISTICS

Tube Voltage Drop for 50 milliamps Plate Current, each plate (dc)	10	volts
Life Expectancy, at 160 °C Maximum Bulb Temperature	5,000	hours

TYPICAL OPERATION -- *Full-Wave Rectifier*

Heater Voltage (ac or dc)	26.5	volts
Plate Voltage, each plate (ac, rms)	150	volts
Effective Plate Supply Impedance	300	ohms
Output Current (dc)	18	milliamps

(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 Navy Type High Impact (Flyweight) Shock 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) With external shield of 0.405 inch diameter.

(7) Tube life and reliability of performance are directly related to the degree of regulation of the heater voltage to its center-rated value of 26.5 volts.