

SYLVANIA ELECTRIC

RTMA Registration Data

from RTMA release #946,
Feb. 20, 1951

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 μ f
Input (each section): Plate to Cathode, Heater,
Internal Shield and External Shield 3.4 μ f
Cathode to Heater, Plate, Internal Shield,
and External Shield (each section) 4.6 μ f
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 (\pm 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 \pm 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.