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-0-4

Lead Connections:
Lead 1 .. #2 diode plate
Lead 2 .. #2 diode cathode
Lead 3 .. heater
Lead 4 .. internal shield
Lead 5 .. #1 diode plate
Lead 6 .. heater
Lead 7 .. #1 diode cathode
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.)

SYLVANIA ELECTRIC PRODUCTS INC.
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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.