

# 1N5391 THRU 1N5399

## PLASTIC SILICON RECTIFIER

### VOLTAGE - 50 to 1000 Volts    CURRENT - 1.5 Amperes

#### FEATURES

- Low cost
- High current capability
- High reliability
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound
- 1.5 ampere operation at  $T_L=70\text{ }^{\circ}\text{C}$  with no thermal runaway
- Exceeds environmental standards of MIL-S-19500/228
- Low leakage

#### MECHANICAL DATA

Case: Molded plastic , DO-15

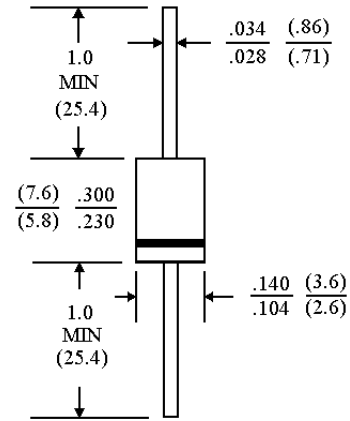
Terminals: Plated axial leads, solderable per MIL-STD-202, Method 208

Polarity: Color band denotes cathode

Mounting Position: Any

Weight: 0.015 ounce, 0.4 gram

#### DO-15



Dimensions in inches and (millimeters)

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25  $^{\circ}\text{C}$  ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	1N5391	1N5392	1N5393	1N5394	1N5395	1N5396	1N5397	1N5398	1N5399	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	300	400	500	600	800	1000	V
Maximum RMS Voltage	35	70	140	210	280	350	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	300	400	500	600	800	1000	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at $T_A=60\text{ }^{\circ}\text{C}$	1.5									A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	50									A
Maximum Forward Voltage at 1.5A	1.4									V
Maximum Reverse Current Rated $T_A=25\text{ }^{\circ}\text{C}$	5.0									mA
DC Blocking Voltage $T_A=100\text{ }^{\circ}\text{C}$	500									mA
Typical Junction capacitance (Note 1)	25									pF
Typical Thermal Resistance (Note 2)	26.0									$^{\circ}\text{C}/\text{W}$
Operating and Storage Temperature Range $T_J, T_{STG}$	-55 TO +150									$^{\circ}\text{C}$

#### NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
2. Thermal Resistance Junction to Ambient and from junction to lead at 0.375"(9.5mm) lead length P.C.Board mounted.

# RATING AND CHARACTERISTIC CURVES

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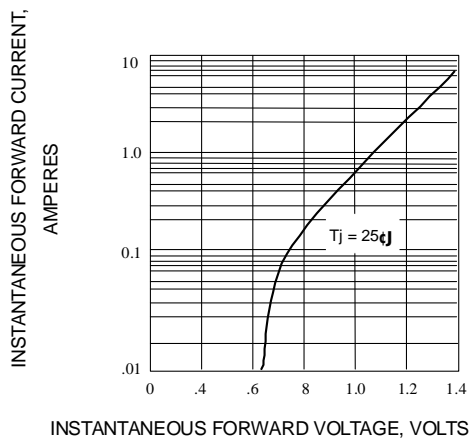


Fig. 1-TYPICAL FORWARD CHARACTERISTICS

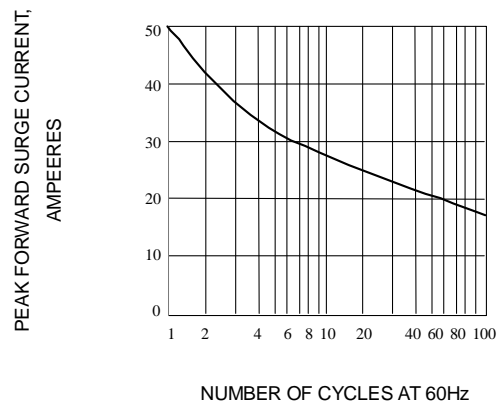


Fig. 2-PEAK FORWARD SURGE CURRENT

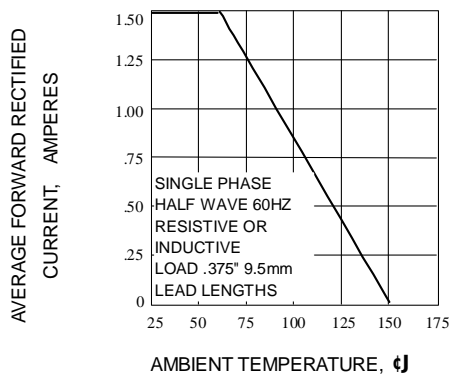


Fig. 3-FORWARD CURRENT DERATING CURVE

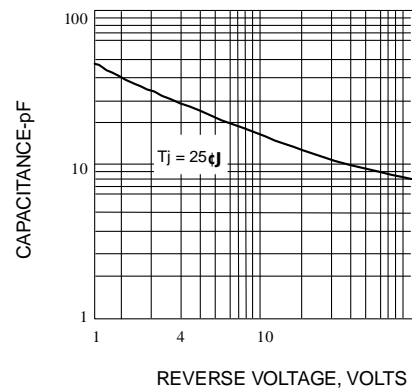


Fig. 4-TYPICAL JUNCTION CAPACITANCE