

# 1N5391 THRU 1N5399

## GENERAL PURPOSE PLASTIC SILICON RECTIFIER

**REVERSE VOLTAGE:** 50 to 1000 VOLTS

**FORWARD CURRENT:** 1.5 AMPERES

<http://www.njzrg.com>

### FEATURES

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

### MECHANICAL DATA

Case: Molded plastic, DO-15

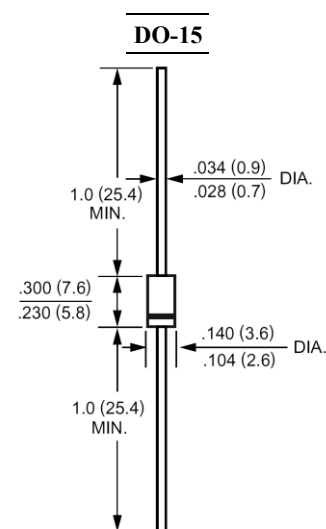
Terminals: Plated axial leads, solderable per

MIL-STD-202, method 208 guaranteed

Polarity: Color band denotes cathode end

Mounting position: Any

Weight: 0.015ounce, 0.4gram



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Ratings at 25 ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

	Symbols	1N5391	1N5392	1N5393	1N5394	1N5395	1N5396	1N5397	1N5398	1N5399	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	300	400	500	600	800	1000	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	210	280	350	420	560	700	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	300	400	500	600	800	1000	Volts
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at $T_A=75$	$I_{(AV)}$	1.5									Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	50									Amp
Maximum Forward Voltage at 1.5A DC and 25	$V_F$	1.4									Volts
Maximum Reverse Current at $T_A=25$ at Rated DC Blocking Voltage $T_A=100$	$I_R$	5.0 500									uAmp
Typical Junction Capacitance (Note 1)	$C_J$	20									pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	50									/W
Operating Junction Temperature Range	$T_J$	-55 to +150									
Storage Temperature Range	$T_{stg}$	-55 to +150									

### NOTES:

1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2- Thermal Resistance From Junction to Ambient 0.375"(9.5mm) lead length P.C.B. Mounted.

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### RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

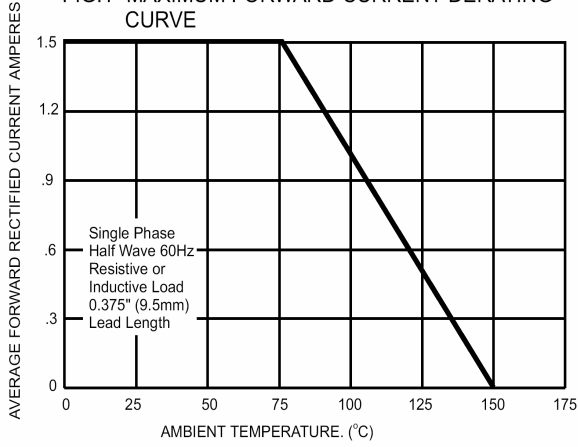


FIG.2- TYPICAL FORWARD CHARACTERISTICS

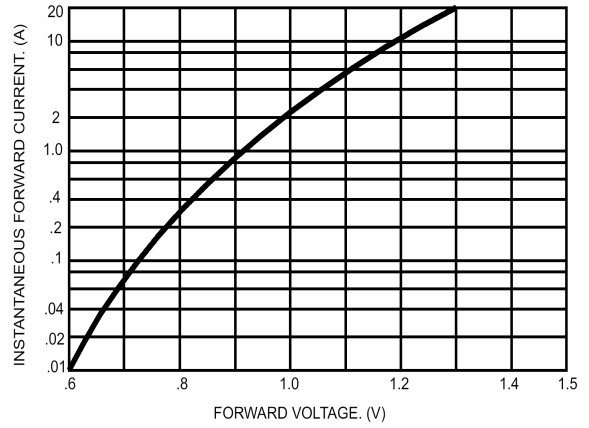


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

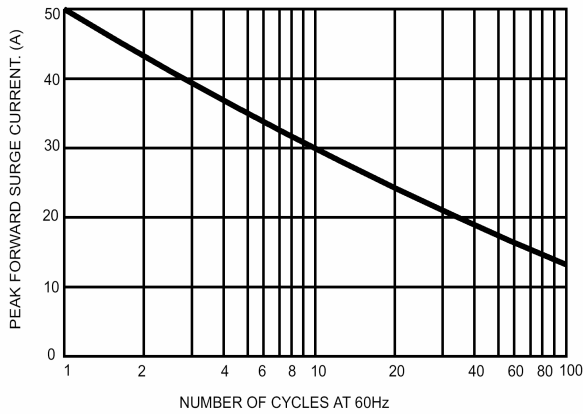


FIG.4- TYPICAL REVERSE CHARACTERISTICS

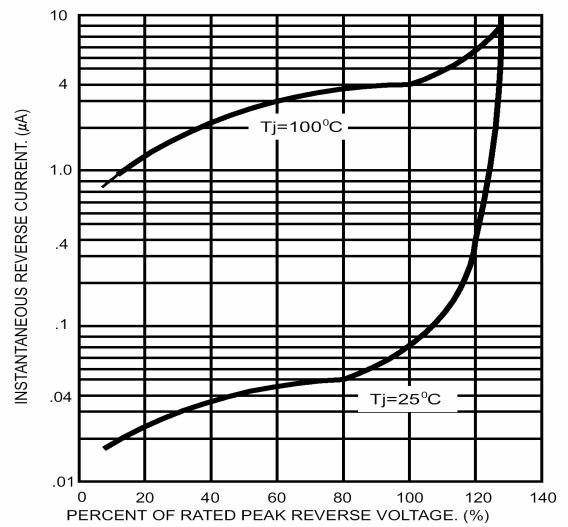


FIG.5- TYPICAL JUNCTION CAPACITANCE

