



1N5391 THRU 1N5399

GENERAL PURPOSE PLASTIC SILICON RECTIFIER

REVERSE VOLTAGE: 50 to 1000 VOLTS
FORWARD CURRENT: 1.5 AMPERES

FEATURES

- Low cost
- High current capability
- Plastic package has Underwriters Laboratory
- Exceeds environmental standards of MIL-S-19500/228
- Low leakage.
- Suffix "H" indicates Halogen-free parts, ex. 1N5391H

MECHANICAL DATA

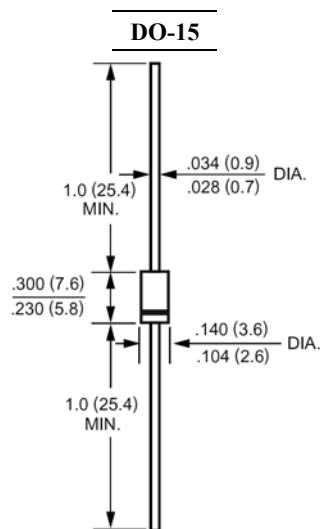
Case : Molded plastic, DO-15

Epoxy : UL 94V-O rate flame retardant

Lead : Axial leads, solderable per MIL-STD-202, method 208 guaranteed

Polarity : Color band denotes cathode end

Mounting position : Any



Dimensions in inchs and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

Parameter	Symbols	1N5391	1N5392	1N5393	1N5395	1N5397	1N5398	1N5399	Units
Maximum Recerrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at $T_A=75^\circ\text{C}$	$I_{(AV)}$	1.5							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	50.0							Amp
Maximum Forward Voltage at 1.5A DC and 25°C	V_F	1.4							Volts
Maximum Reverse Current at $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A=100^\circ\text{C}$	I_R	5.0 50							uAmp
Typical Junction Capacitance (Note 1)	C_J	20							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	50.0							°C/W
Operating Junction Temperature Range	T_J	-55 to +150							°C
Storage Temperature Range	T_{STG}	-55 to +150							°C

NOTES:

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

2- Thermal Resistance Junction to Ambient and form junction to lead at 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

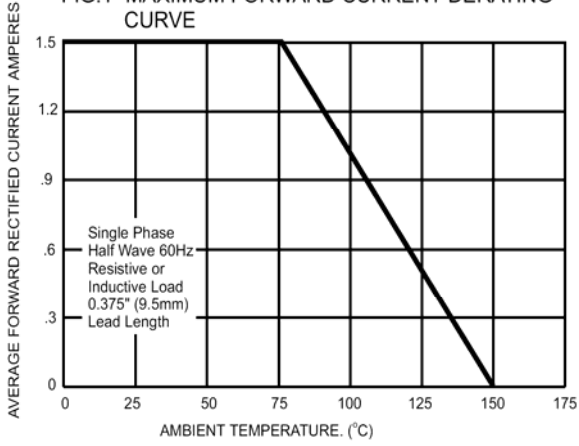


FIG.2- TYPICAL FORWARD CHARACTERISTICS

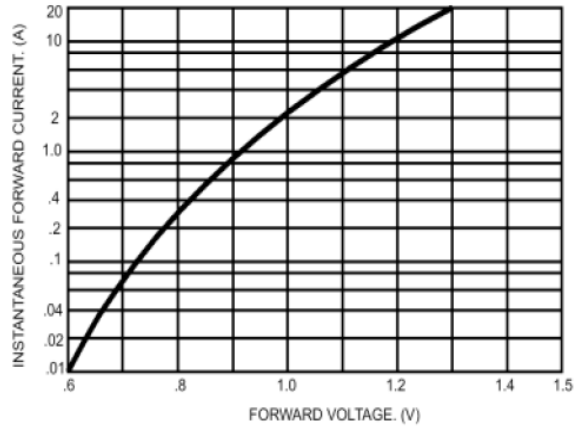


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

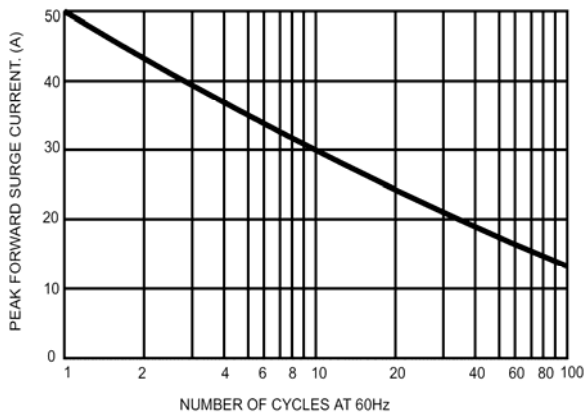


FIG.4- TYPICAL REVERSE CHARACTERISTICS

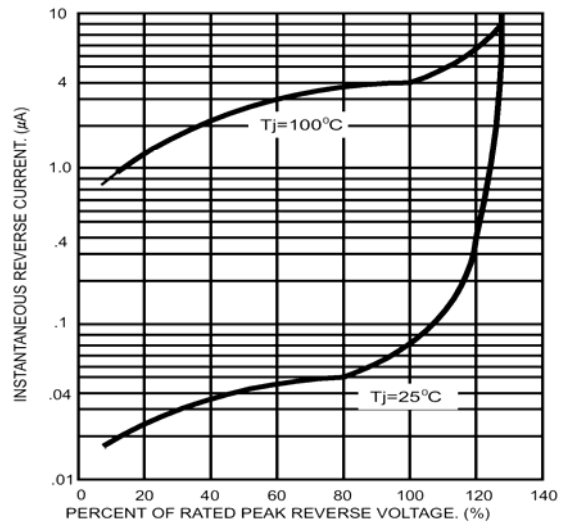


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

