

# 1N5391 - 1N5399

## 1.5 AMPS. Silicon Rectifiers

### DO-15

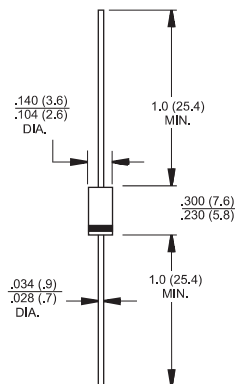


## Features

- ✧ High efficiency, Low VF
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability
- ✧ Low power loss

## Mechanical Data

- ✧ Cases: Molded plastic
- ✧ Epoxy: UL 94V-0 rate flame retardant
- ✧ Lead: Pure tin plated, lead free., solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: Color band denotes cathode
- ✧ High temperature soldering guaranteed: 260°C/10 seconds/.375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- ✧ Weight: 0.40 gram



Dimensions in inches and (millimeters)

## Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

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

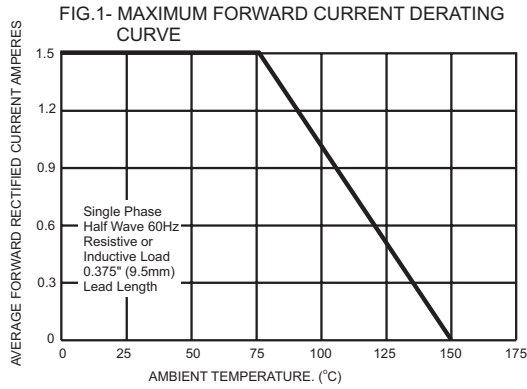
For capacitive load, derate current by 20%

Type Number	Symbol	1N 5391	1N 5392	1N 5393	1N 5395	1N 5397	1N 5398	1N 5399	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375 (9.5mm) Lead Length @ $T_A = 75^\circ C$	$I_{(AV)}$	1.5							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )	$I_{FSM}$	50							A
Maximum Instantaneous Forward Voltage @ 1.5A	$V_F$	1.1	1.0						V
Maximum DC Reverse Current @ $T_A=25^\circ C$ at Rated DC Blocking Voltage @ $T_A=125^\circ C$	$I_R$	5.0 50							$\mu A$ $\mu A$
Maximum Full Load Reverse Current, Full Cycle Average .375"(9.5mm) Lead Length @ $T_A=75^\circ C$	$HT_{IR}$	30							$\mu A$
Typical Junction Capacitance ( Note 1 )	$C_j$	50							pF
Typical Thermal Resistance ( Note 2 )	$R_{\theta JA}$	60							$^\circ C/W$
Operating Temperature Range	$T_J$	-65 to +150							$^\circ C$
Storage Temperature Range	$T_{STG}$	-65 to +150							$^\circ C$

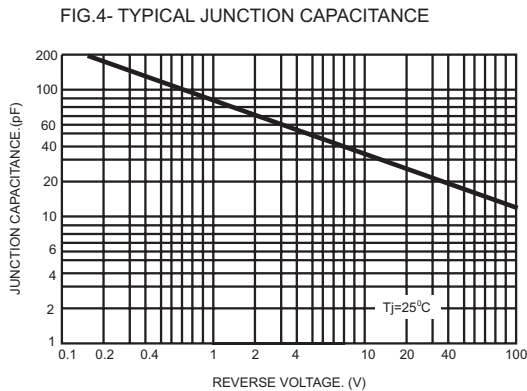
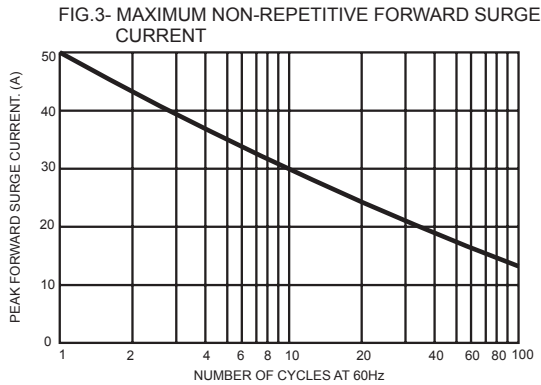
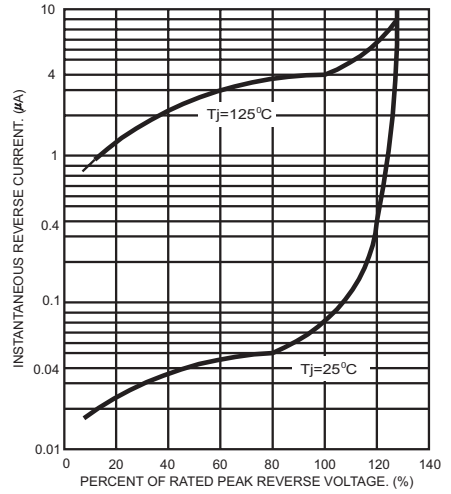
Notes: 1. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.

2. Mount on Cu-Pad Size 10mm x 10mm on P.C.B

## RATINGS AND CHARACTERISTIC CURVES (1N5391 THRU 1N5399)



**FIG.2- TYPICAL REVERSE CHARACTERISTICS**



**FIG.5- TYPICAL FORWARD CHARACTERISTICS**

