



# 1N5391G THRU 1N5399G

## GENERAL PURPOSE SILICON RECTIFIER

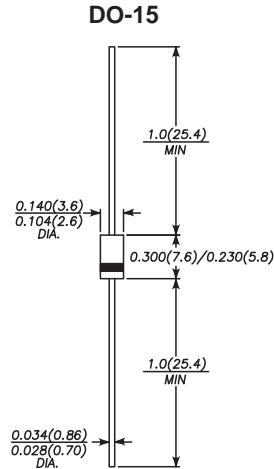
Reverse Voltage - 50 to 1000 Volts Forward Current - 1.5Amperes

### FEATURES

The plastic package carries Underwriters Laboratory  
Flammability Classification 94V-0  
Construction utilizes void-free  
molded plastic technique  
Low reverse leakage  
High forward surge current capability  
High temperature soldering guaranteed:  
260°C/10 seconds, 0.375" (9.5mm) lead length,  
5 lbs. (2.3kg) tension  
Glass passivated chip junction

### MECHANICAL DATA

**Case:** JEDEC DO-15 molded plastic body  
**Terminals:** Plated axial leads, solderable per MIL-STD-750,  
Method 2026  
**Polarity:** Color band denotes cathode end  
**Mounting Position:** Any  
**Weight:** 0.014 ounce, 0.40 grams



Dimensions in inches 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 current derate by 20%.

	SYMBOLS	1N 5391	1N 5392	1N 5393	1N 5394	1N 5395	1N 5396	1N 5397	1N 5398	1N 5399	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	300	400	500	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	210	280	350	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	300	400	500	600	800	1000	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A=75^\circ\text{C}$	$I_{AV}$	1.5									A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	50.0									A
Maximum instantaneous forward voltage at 1.5A	$V_F$	1.1									V
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=125^\circ\text{C}$	$I_R$	5.0 100.0									$\mu\text{A}$
Typical junction capacitance (NOTE 1)	$C_J$	20.0									pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	50.0									$^\circ\text{C/W}$
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +150									$^\circ\text{C}$

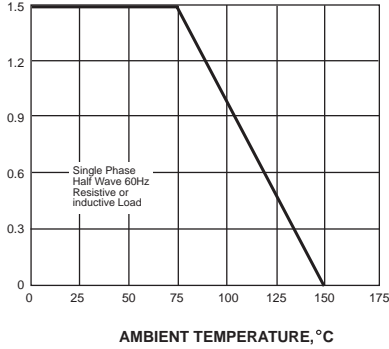
**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.  
2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted



# RATINGS AND CHARACTERISTIC CURVES 1N5391G THRU 1N5399G

AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT, AMPERES

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

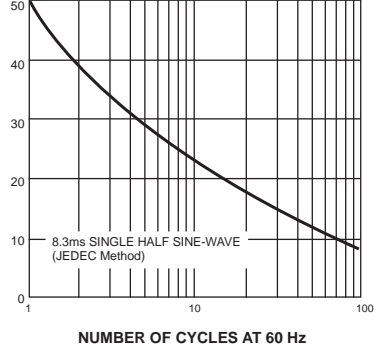


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

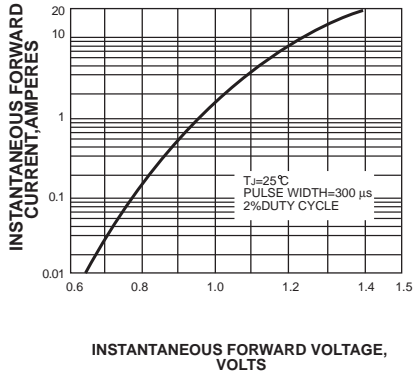
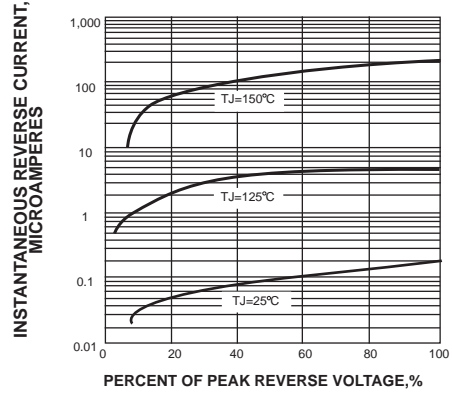
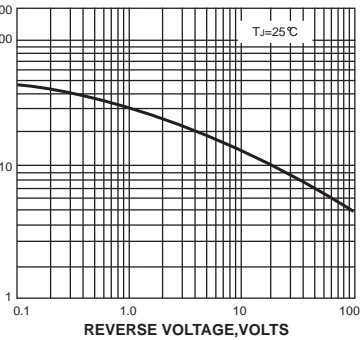


FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE,  $^\circ\text{C}/\text{W}$

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

