



# 1N5391G thru 1N5399G

Glass Passivated Junction Rectifiers  
Reverse Voltage 50 to 1000 Volts Forward Current 1.5 Amperes

## Features

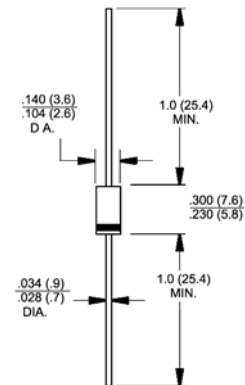
- ◆ Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- ◆ High temperature metallurgically bonded construction
- ◆ Cavity-free glass passivated junction
- ◆ Capable of meeting environmental standards of MIL-S-19500
- ◆ 1.5 Amperes operation at  $T_L=70^\circ\text{C}$  with no thermal runaway
- ◆ Typical  $I_R$  less than 0.1  $\mu\text{A}$
- ◆ High temperature soldering guaranteed:  
350°C/10 seconds, 0.375" (9.5mm) lead length,  
5 lbs. (2.3kg) tension



DO-204AC (DO-15)

## Mechanical Data

- ◆ Case: JEDEC DO-204AC(DO-15), molded plastic over glass 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, 0.395 gram



Dimensions in inches and (millimeters)

## Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbols	1N53 91G	1N53 92G	1N53 93G	1N53 94G	1N53 95G	1N53 96G	1N53 97G	1N53 98G	1N53 99G	Units
Maximum repetitive 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 0.375" (9.5mm) lead length at $T_L=70^\circ\text{C}$	$I_{F(AV)}$	1.5									Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	50.0									Amps
Maximum full load reverse current, full cycle average 0.375" (9.5mm) lead length $T_A=70^\circ\text{C}$	$I_{R(AV)}$	300									$\mu\text{A}$
Maximum instantaneous forward voltage at 1.5A, $T_A=70^\circ\text{C}$	$V_F$	1.4									Volts
Maximum DC reverse current at rated DC blocking voltage @ $T_A=25^\circ\text{C}$ @ $T_A=150^\circ\text{C}$	$I_R$	5.0 300									$\mu\text{A}$
Typical reverse recovery time at $I_F=0.5\text{A}$ , $I_R=1.0\text{A}$ , $I_T=0.25\text{A}$	$t_{rr}$	1.0									$\mu\text{s}$
Typical junction capacitance at 4.0V, 1MHz	$C_J$	15.0									pF
Typical thermal resistance (NOTE 1)	$R_{\theta JA}$	45.0									$^\circ\text{C/W}$
Operating junction temperature range	$T_J$	-55 to +150									$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-55 to +150									$^\circ\text{C}$

Notes: 1. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

# RATINGS AND CHARACTERISTIC CURVES

