



1N5391G thru 1N5399G

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

Features

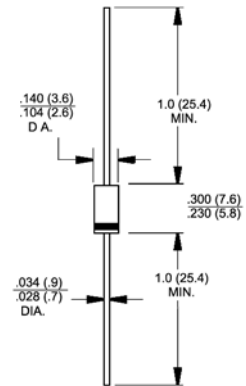
- ◆ Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- ◆ High temperature metallurgically bonded construction
- ◆ Cavity-free glass passivated junction
- ◆ Capable of meeting environmental standards of MIL-S-19500
- ◆ 1.5 Amperes operation at $T_L=70^\circ\text{C}$ with no thermal runaway
- ◆ Typical I_R less than 0.1 μA
- ◆ 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 | | | | | | | | | μA |
| 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 | | | | | | | | | μA |
| Typical reverse recovery time at $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $t_{rr}=0.25\text{A}$ | t_{rr} | 1.0 | | | | | | | | | μs |
| 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

