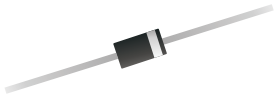
Axial Silastic Guard Junction Standard Rectifier

1N5391-G Thru. 1N5399-G

Voltage: 50 to 1000 Volts
Forward Current: 1.5 Amps
RoHS Device



Features

-Low cost construction.

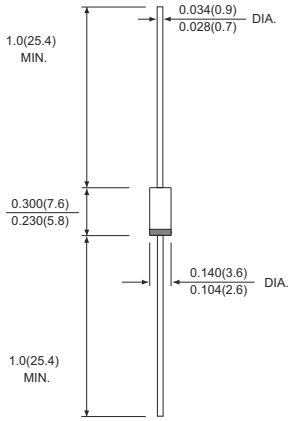
-Low forward voltage drop.

-Low reverse leakage.

-High forward surge current capability.

-High temperature soldering guarantee: 260°C/10 seconds, 0.375" (9.5mm) lead length at 5lbs (2.3kg) tension.

DO-15



Dimensions in inches and (millimeters)

Mechanical Data

-Case: transfer-molded plastic.

-Epoxy: UL94V-0 rate flame retardant.

-Lead: Plated axial lead, solderable per MIL-STD-202E, method 208C.

-Polarity: Cathode indicated by polarity band.

-Mounting position: Any.

-Weight: 0.012 ounce, 0.33grams.

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	Symbol	1N5391 -G	1N5392 -G	1N5393 -G	1N5394 -G	1N5395 -G	1N5396 -G	1N5397 -G	1N5398 -G	1N5399 -G	Unit
Max.repetitive peak reverse voltage	V_{RRM}	50	100	200	300	400	500	600	800	1000	V
Max.RMS voltage	V_{RMS}	35	70	140	210	280	350	420	560	700	V
Max.DC blocking voltage	V_{DC}	50	100	200	300	400	500	600	800	1000	V
Max. average forward rectified current , 0.375"(9.5mm) lead length at T_A=75 °C	$I_{(AV)}$	1.5									A
Peak forward surge current, 8.3mS single half sine wave superimpose on rated load (JEDEC method)	I_{FSM}	30									A
Max. instantaneous forward voltage at I_F=1.0A	V_F	1.1									V
Max. DC reverse current at T_A=25 °C rated DC blocking voltage T_A=100 °C	I_R	5.0 50									μA
Max. full load reverse current, full cycle average 0.375"(9.5mm) lead length at T_L=75 °C	$I_{R(AV)}$	30									μA
Typical junction capacitance (Note 1)	C_J	13									pF
Typical thermal resistance (Note 2)	$R_{\theta JA}$	50									°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 1.0MHz and applied reverse voltage of 4.0V DC.
2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C. board mounted with 0.2"×0.2" (5.0×5.0mm) copper pads.

Rating and Characteristic Curves (1N5391-G Thru. 1N5399-G)

Fig.1 Typical Forward Current Derating Curve

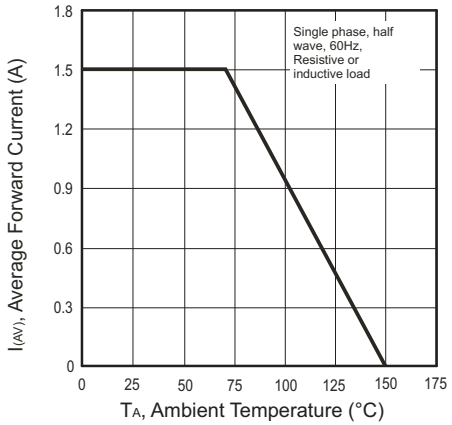


Fig.2 Max. Non-Repetitive Peak Forward Surge Current

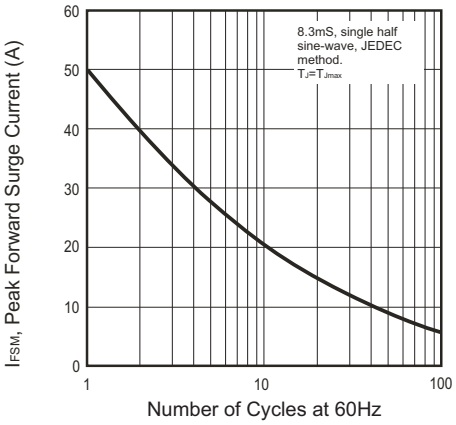


Fig.3 Typical Instantaneous Forward Characteristics

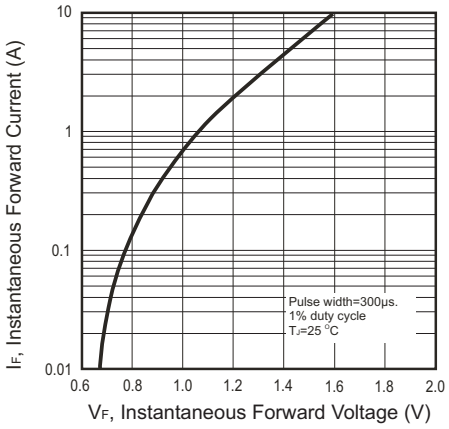


Fig.4 Typical Reverse Characteristics

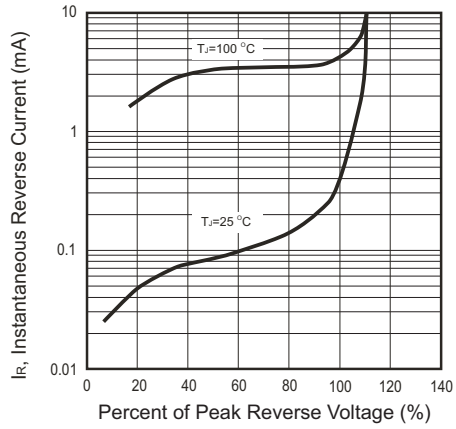


Fig.5 Typical Junction Capacitance