

Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- 3mm miniature body
- T_J is 150°C (Max.) and T_{STG} is 175°C (Max.) with PI glue



Mechanical Data

- Case: Molded plastic R-1
- Epoxy: UL 94V-O rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: Color band denotes cathode end
- High temperature soldering guaranteed: 250°C/10 seconds
0.375" (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- Weight: 0.007 ounce, 0.20 gram

R-1



Absolute 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	1A1	1A2	1A3	1A4	1A5	1A6	1A7	Unit
Maximum Repetitive 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, 0.375" (9.5mm) Lead Length @ $T_A = 50^\circ C$	$I_{(AV)}$	1.0							A
Peak Forward Surge Current, 8.3 mS Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	30.0							A
Maximum Instantaneous Forward Voltage @ 1.0A	V_F	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	@ $T_A = 25^\circ C$	5.0							uA
	@ $T_A = 100^\circ C$	50.0							
Maximum Full Load Reverse Current Full Cycle Average, 0.375" (9.5mm) Lead Length @ $T_A = 50^\circ C$	$I_{R(AV)}$	30							uA
Typical Junction Capacitance ¹	C_J	15							pF
Typical Thermal Resistance ²	$R_{\theta JA}$	50							°C/W
Operating Junction Temperature Range	T_J	-55 to +125							°C
Storage Temperature Range	T_{STG}	-55 to +150							°C

Notes: 1. Measured at 1 MHz and applied reverse voltage of 4.0 Volts D.C.
 2. Thermal resistance from junction to ambient 0.375" (9.5mm) lead length

Ratings and Characteristics Curves

($T_A = 25^\circ\text{C}$ unless otherwise noted)

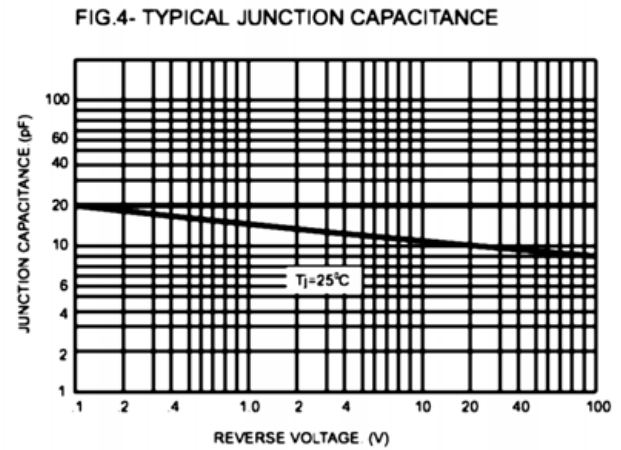
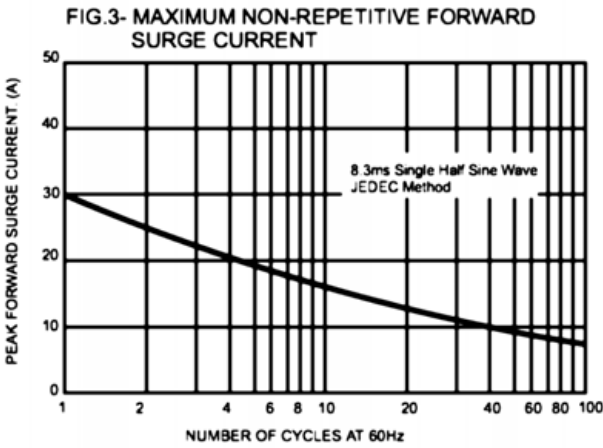
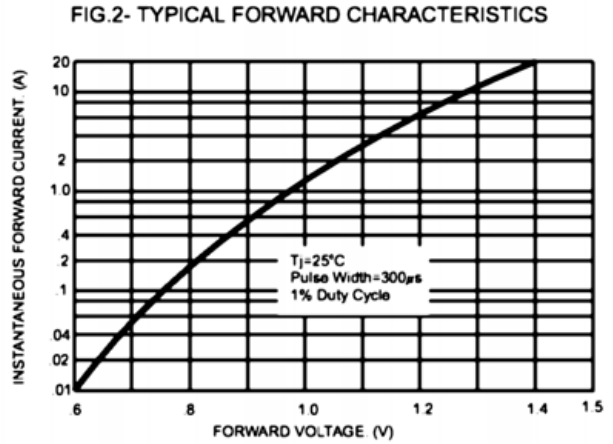
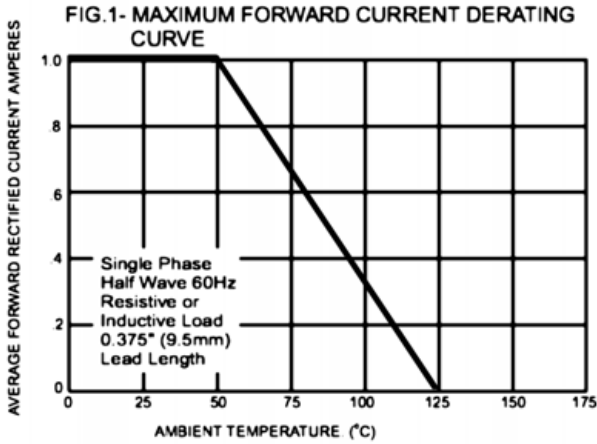
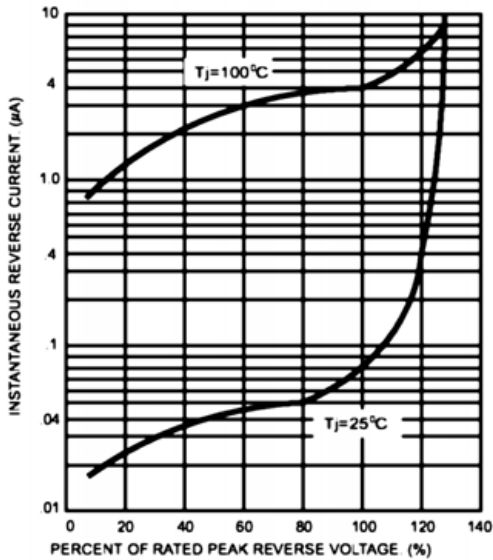
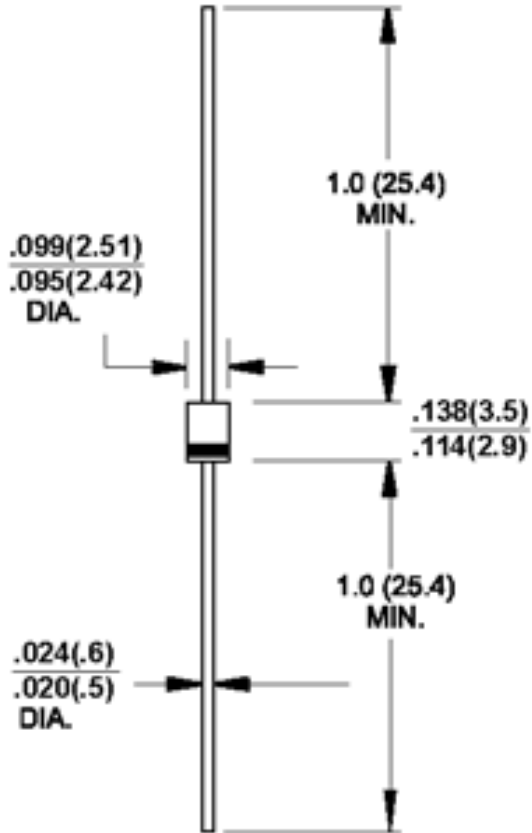


FIG.5- TYPICAL REVERSE CHARACTERISTICS



Package Outline Dimensions R-1



Dimensions in inches and (millimeters)