

Glass Passivated Rectifier



Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability

Specifications:

Cases	: Molded plastic
Lead	: Axial leads, solderable per MIL-STD- 202, Method 208 guaranteed
Polarity	: Colour band denotes cathode end
High temperature soldering	: 260°C/10 seconds/.375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
Weight	: 0.34g

Max. Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristics	Symbol	Value	Units
Max. Recurrent Peak Reverse Voltage	V_{RRM}	1,000	V
Max. RMS Voltage	V_{RMS}	700	V
Max. DC Blocking Voltage	V_{DC}	1,000	V
Maximum Average Forward Rectified Current .375" (9.5mm) Lead Length @ $T_A = 50^\circ C$	$I_{(AV)}$	1	A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	30	A
Max. Instantaneous Forward Voltage @ 1A	V_F	1	V
Max. DC Reverse Current @ $T_A=25^\circ C$ at Rated DC Blocking Voltage @ $T_A=125^\circ C$	I_R	5 100	μA μA
Typical Junction Capacitance (Note 1)	C_j	10	pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	65	$^\circ C/W$
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150	$^\circ C$

Note : 1. Measured at 1MHz and Applied Reverse Voltage of 4V DC

2. Mount on Cu-Pad Size 5mm x 5mm on PCB.

Ratings and Characteristic Curves

FIG.1- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

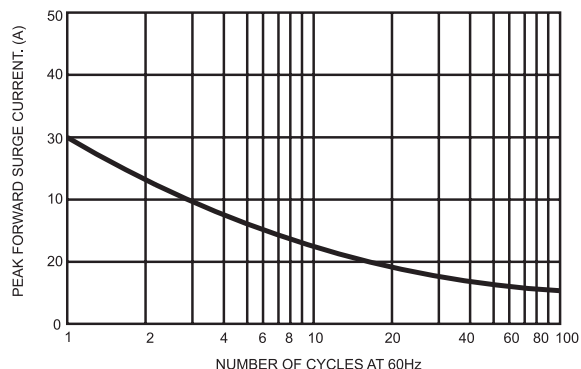


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

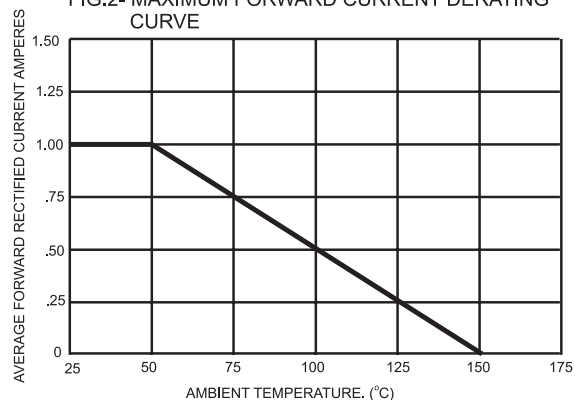


FIG.3- TYPICAL JUNCTION CAPACITANCE

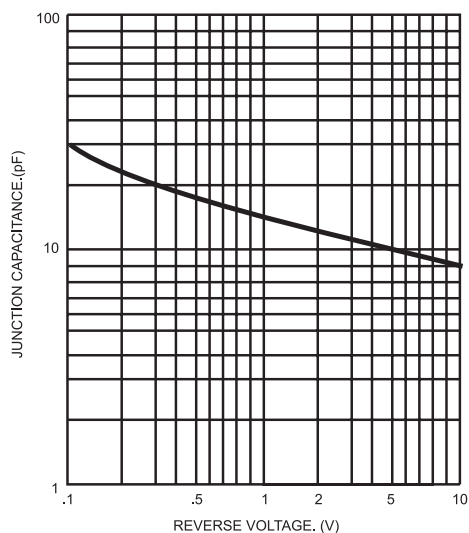
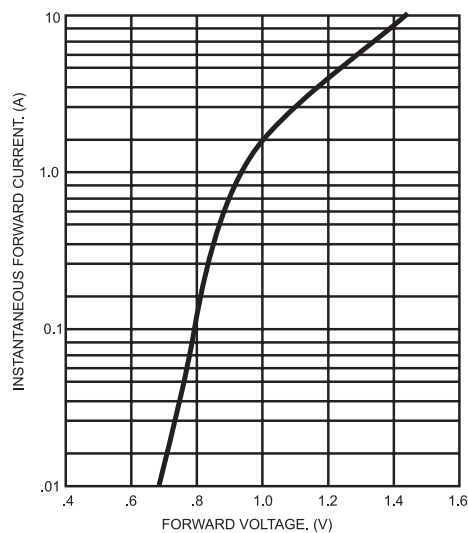
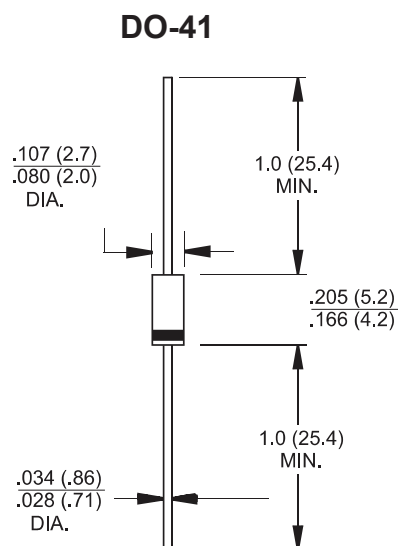


FIG.4- TYPICAL FORWARD CHARACTERISTICS



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Dimensions : Inches (Millimetres)

Part Number Table

Description	Part Number
Diode, Standard, 1A, 1,000V	1N4007G

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