



## AXIAL SILASTIC GUARD JUNCTION STANDARD RECTIFIER

**1N4001G THRU 1N4007G**

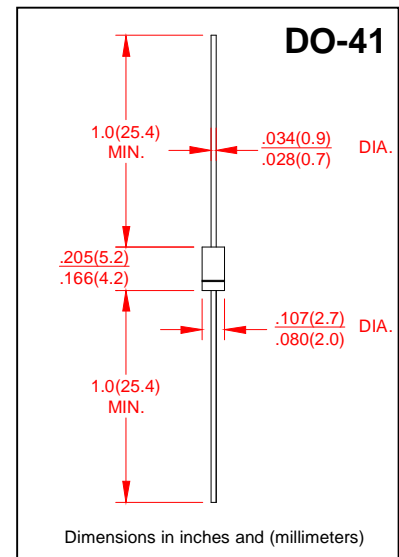
**VOLTAGE RANGE**      **50 to 1000 Volts**  
**CURRENT**              **1.0 Ampere**

### FEATURES

- Glass passivated chip junction
- Low forward voltage drop
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed  
 260°C/10 secods,0.375”(9.5mm)lead length at 5 lbs(2.3kg) tension

### MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Polarity: Color band denotes cathode end
- Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
- Mounting position: Any
- Weight: 0.012ounce, 0.33 grams



### 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%

	SYMBOLS	1N 4001G	1N 4002G	1N 4003G	1N 4004G	1N 4005G	1N 4006G	1N 4007G	UNITS	
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts	
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts	
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	Volts	
Maximum Average Forward Rectified Current (FIG.1) 0.375”(9.5mm) lead length at $T_A=75^\circ\text{C}$	$I_{(AV)}$	1.0							Amp	
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	$I_{FSM}$	30							Amps	
Maximum Instantaneous Forward Voltage at 1.0A	$V_F$	1.1							Volts	
Maximum DC Reverse Current at Rated DC Blocking Voltage at	$T_A = 25^\circ\text{C}$	$I_R$							5.0	$\mu\text{A}$
	$T_A = 125^\circ\text{C}$								50	
Maximum Full Load Reverse Current, full cycle Average 0.375(9.5mm) lead length at $T_L=75^\circ\text{C}$	$I_{R(AV)}$	30							$\mu\text{A}$	
Typical Junction Capacitance (NOTE 1)	$C_J$	15							pF	
Typical Thermal Resistance (NOTE 2)	$R_{\theta JA}$	50							$^\circ\text{C}/\text{W}$	
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150							$^\circ\text{C}$	

#### Notes:

1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.
2. Thermal Resistance from Junction to Ambient at .375”(9.5mm)lead length, P.C. board mounted.



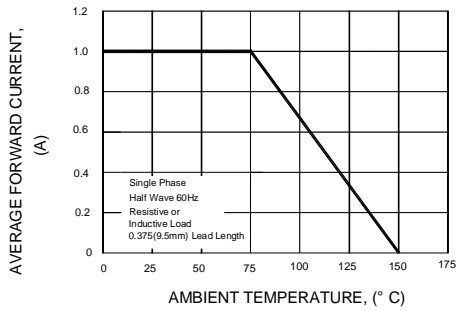
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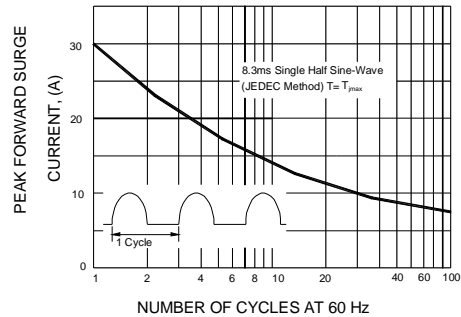
<b>VOLTAGE RANGE</b>	<b>50 to 1000 Volts</b>
<b>CURRENT</b>	<b>1.0 Ampere</b>

### RATING AND CHARACTERISTIC CURVES 1N4001G THRU 1N4007G

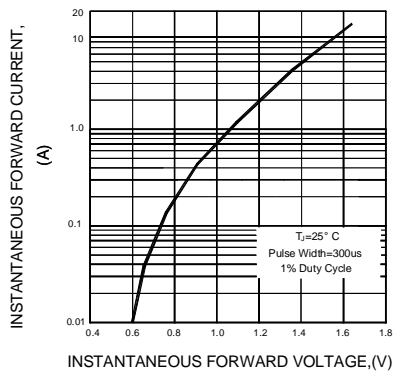
**FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE**



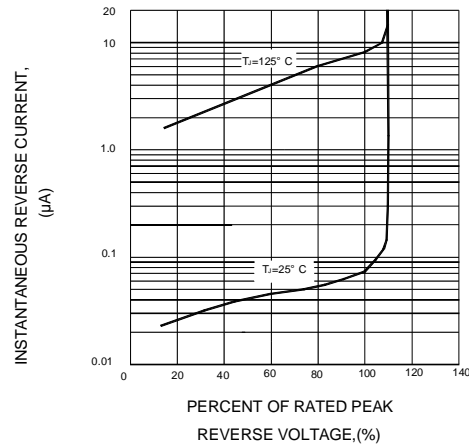
**FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.4-TYPICAL REVERSE CHARACTERISTICS**



**FIG.5-TYPICAL JUNCTION CAPACITANCE**

