

**GLASS PASSIVATED  
JUNCTION PLASTIC RECTIFIER**

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

**FEATURES**

- \* High reliability
- \* Low cost
- \* Low leakage
- \* Low forward voltage drop
- \* High current capability
- \* Glass passivated junction

**MECHANICAL DATA**

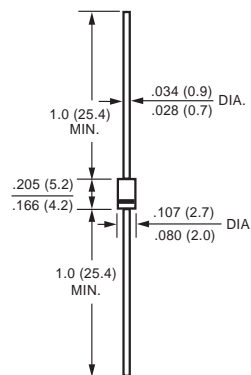
- \* Case: Molded plastic
- \* Epoxy: Device has UL flammability classification 94V-O
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any
- \* Weight: 0.33 gram

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.



**DO-41**



Dimensions in inches and (millimeters)

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

RATINGS	SYMBOL	1N4001G	1N4002G	1N4003G	1N4004G	1N4005G	1N4006G	1N4007G	UNITS
Maximum Recurrent 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 at $T_A = 75^\circ\text{C}$	$I_O$	1.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	30							Amps
Typical Junction Capacitance (Note)	$C_J$	15							pF
Typical Thermal Resistance	$R_{\theta JA}$	50							$^\circ\text{C/W}$
Typical Thermal Resistance	$R_{\theta JC}$	15							$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_J, T_{STG}$	$-55$ to $+150$							$^\circ\text{C}$

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

CHARACTERISTICS	SYMBOL	1N4001G	1N4002G	1N4003G	1N4004G	1N4005G	1N4006G	1N4007G	UNITS
Maximum Instantaneous Forward Voltage at 1.0A DC	$V_F$	1.1							Volts
Maximum DC Reverse Current	$I_R$	50							uAmps
at Rated DC Blocking Voltage									
Maximum Full Load Reverse Current Average, Full Cycle .375" (9.5mm) lead length at $T_L = 75^\circ\text{C}$		30							uAmps

NOTES : 1.Measured at 1 MHz and applied reverse voltage of 4.0 volts

2. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

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REV:A

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

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

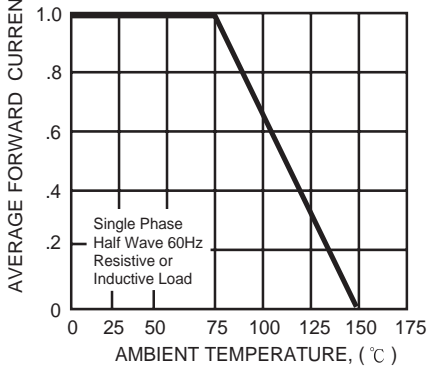


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

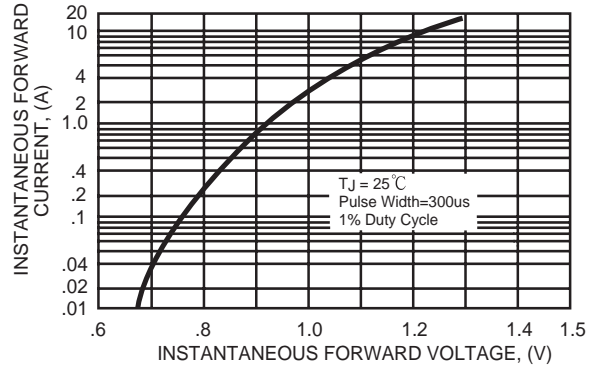


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

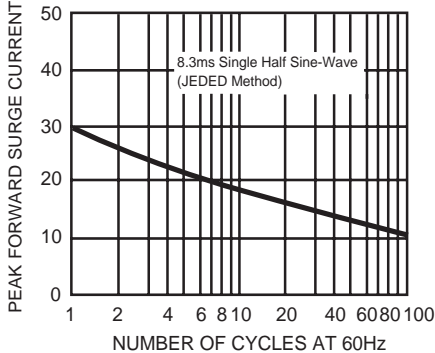


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

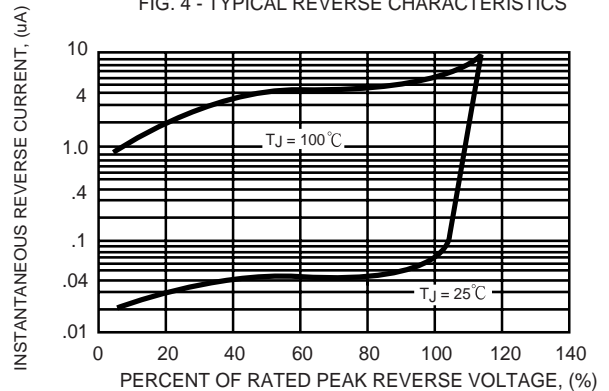


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

