



SEMICONDUCTOR

GPRC

# 1N4001G THRU 1N4007G

## GENERAL PURPOSE PLASTIC RECTIFIER

Reverse Voltage - 50 to 1000 Volts

Forward Current - 1.0Ampere

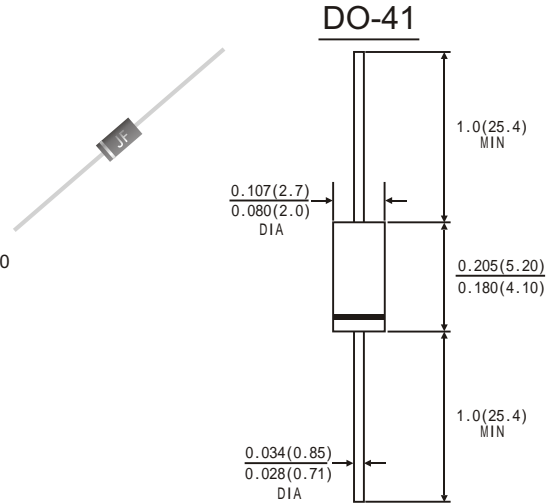
SILICON RECTIFIER

### FEATURES

- GPRC( Glass Passivated Rectifier Chip) inside
- Glass passivated cavity-free junction
- Capable of meeting environmental standards of MIL-S-19500
- 1.0Ampere operation at  $T_a=75$  and 55 with no thermal runaway
- Typical IR less than 0.1uA
- High temperature soldering guaranteed:260  $\pm$ 10 seconds
- Plastic Package has Under writers Laboratory Flammability Classification 94V-0

### MECHANICAL DATA

- Case: JEDEC DO-41 molded plastic body
- Terminals: Lead solderable per MIL-STD-750,method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.012ounce, 0.33 gram



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified )

	Symbols	1N 4001G	1N 4002G	1N 4003G	1N 4004G	1N 4005G	1N 4006G	1N 4007G	Unis
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 0.375"(9.5mm) lead length at $T_a=75$ C	$I_{(AV)}$	1.0							Amp
Peak Forward Surge Current (8.3ms half sine-wave superimposed on rated load (JEDEC method) $T_a=75$ C	$I_{FSM}$	30.0							Amps
Maximum Instantaneous Forward Voltage at 1.0 A	$V_F$	1.0							Volts
Maximum Reverse current at rated DC Blocking Voltage	$T_a = 25^\circ\text{C}$	5.0							$\mu\text{A}$
	$T_a = 100^\circ\text{C}$	50.0							
Typical Thermal resistance (Note 2)	$R_{\theta JA}$	55.0							°C/W
	$R_{\theta JL}$	25.0							
Typical Junction Capacitance(Note 1)	$C_J$	15.0							pF
Maximum DC Blocking Voltage temperature	$T_A$	+150							°C
Operating and Storage temperature Range	$T_J$ $T_{STG}$	-50 to +175							°C

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V DC.

2. Thermal resistance from junction to ambient and from junction to lead at 0.375"(9.5mm)lead length, P.C.B. mounted

# RATINGS AND CHARACTERISTIC CURVES 1N4001G THRU 1N4007G

FIG.1-FORWARD CURRENT DERATING CURVE

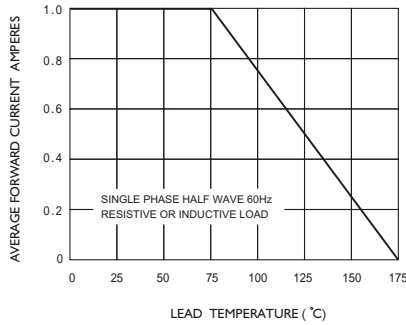


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

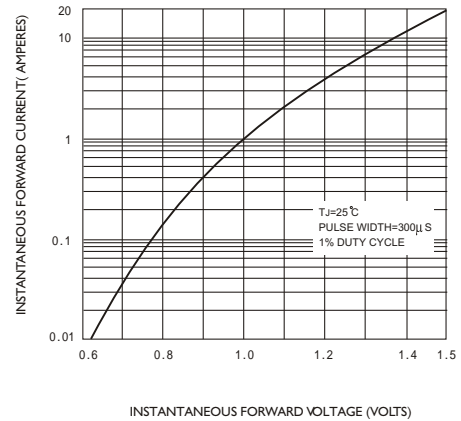


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

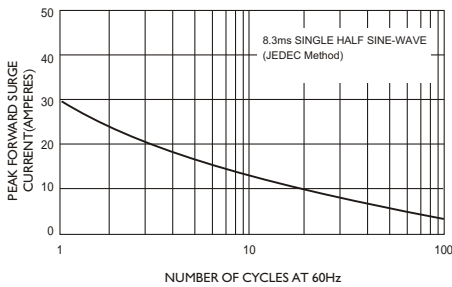


FIG.4-TYPICAL REVERSE CHARACTERISTICS

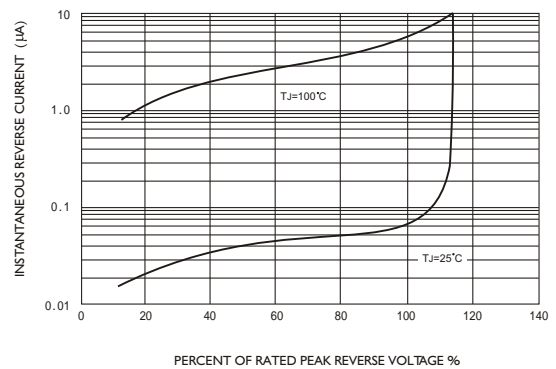


FIG.5-TYPICAL JUNCTION CAPACITANCE

