



SEMICONDUCTOR

GPRC

1N4001G THRU 1N4007G

GENERAL PURPOSE PLASTIC RECTIFIER

Reverse Voltage - 50 to 1000 Volts

Forward Current - 1.0Ampere

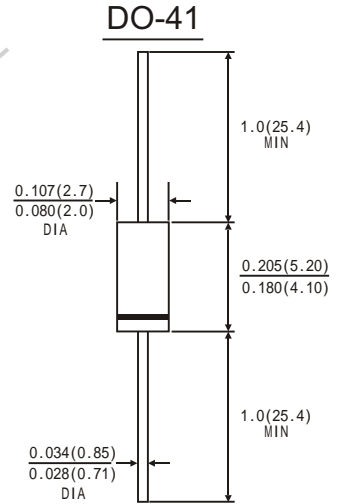
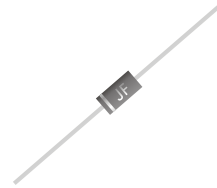
SILICON RECTIFIER

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							μA
	$T_a = 100^\circ\text{C}$								
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

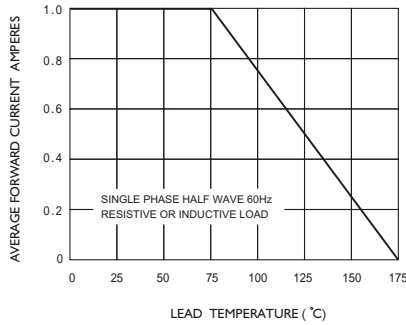


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

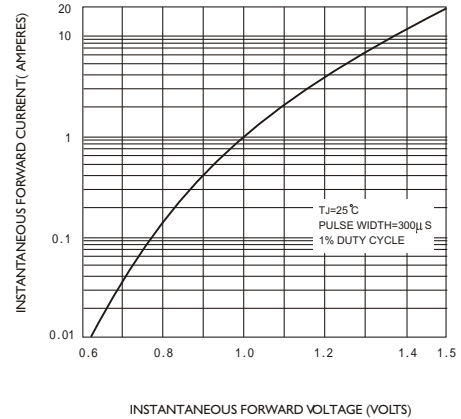


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

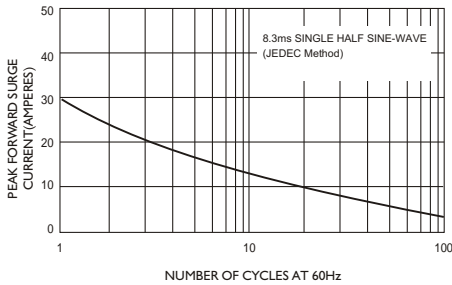


FIG.4-TYPICAL REVERSE CHARACTERISTICS

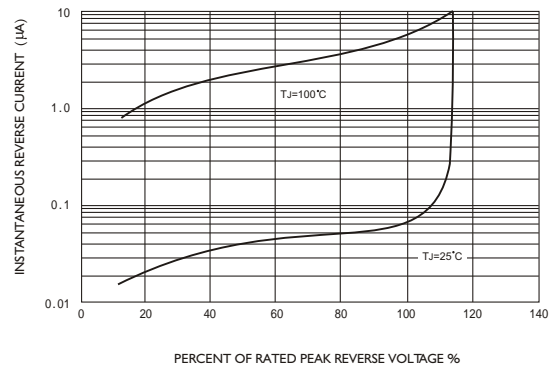


FIG.5-TYPICAL JUNCTION CAPACITANCE

