

GLASS PASSIVATED RECTIFIER

1N4001G THRU 1N4007G

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

FEATURES

- Glass passivated chip junction
- Low forward voltage
- Low reverse leakage
- High forward surge current capacity
- High temperature soldering guaranteed:
 260 /10 seconds, 0.375" (9.5mm) lead length

MECHANICAL DATA

• Case: transfer molded plastic

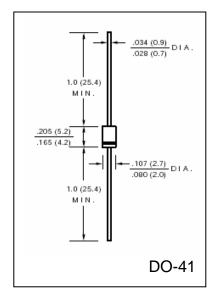
Epoxy: UL94V – 0 rate flame retardant
 Polarity: Color band denotes cathode end

• Lead: Plated axial lead, solderable per MIL-STD-202E

method 208C

Mounting position: any

Weight: 0.012 ounce, 0.33 gram



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	UNIT
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, 0.375 ° (9.5mm) lead length at $T_A = 75$ °C	I _(AV)	1.0							Amps
Peak Forward Surge Current									
8.3mS single half sine wave superimposed on	I_{FSM} 30								Amps
rated load (JEDEC method)									
Maximum Instantaneous Forward Voltage @ 1.0A	$V_{\rm F}$	1.1							Volts
Maximum DC Reverse Current at Rated $T_A = 25$ °C	т	5.0							μΑ
DC Blocking Voltage per element $T_A = 125$ °C	I_R	50							
Maximum Full Load Reverse Current, full cycle Average 0.375 " (9.5mm) lead length at $T_L = 75$ C	$I_{R(AV)}$	30							μΑ
Typical Junction Capacitance (Measured at 1.0MHz and applied reverse voltage of 4.0V)	C_{J}	15							pF
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	50							OC/W
Operating Junction Temperature Range	T_{J}	(-65 to +175)							^o C
Storage Temperature Range	T_{STG}	(-65 to +175)							^o C

Notes:

1. Thermal resistance from junction to ambient with 0.375" (9.5mm) lead length, PCB mounted with 0.2" x 0.2" (5.0mm x 5.0mm) copper pads



RATINGS AND CHARACTERISTIC CURVES 1N4001G THRU 1N4007G

PEAK FORWARD SURGE

CURRENT, (A)

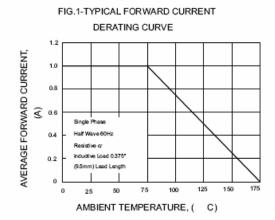


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

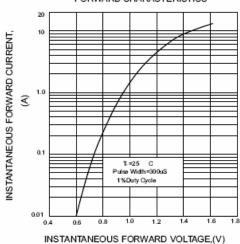


FIG.5-TYPICAL JUNCTION CAPACITANCE

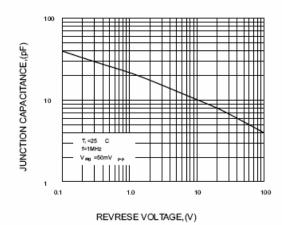


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT

8.3ms Single Half Sine-Wave
(JEDEC Method) =T, , res

NUMBER OF CYCLES AT 60 Hz

FIG.4-TYPICAL REVERSE CHARACTERISTICS

