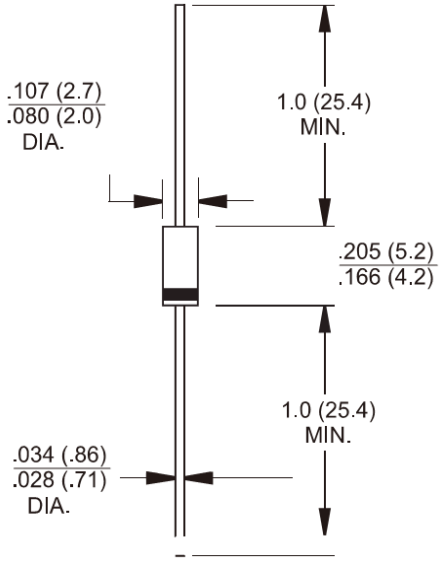
TAIWAN SEMICONDUCTOR

RoHS COMPLIANCE

1N4001G - 1N4007G

1.0 AMP. Glass Passivated Rectifiers

DO-41



Dimensions in inches and (millimeters)

Features

- ✧ Glass passivated chip junction
- ✧ High current capability, Low VF
- ✧ High reliability
- ✧ High surge current capability
- ✧ Low power loss, high efficiency
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode
- ✧ High reliability grade (AEC-Q101 qualified)

Mechanical Data

- ✧ Case: Molded plastic DO-41
- ✧ Epoxy: UL 94V-0 rate flame retardant
- ✧ Lead: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: Color band denotes cathode
- ✧ High temperature soldering guaranteed: 260℃/10s /.375", (9.5mm) lead lengths at 5 lbs, (2.3kg) tension
- ✧ Weight: 0.34 grams

Marking Diagram

1N400XG	= Specific Device Code
G	= Green Compound
Y	= Year
WW	= Work Week

Maximum Ratings and Electrical Characteristics

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

Type Number	Symbol	1N 4001	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	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length @T_A=75℃	$I_{F(AV)}$	1							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	30							A
Maximum Instantaneous Forward Voltage (Note 1) @ 1 A	V_F	1.0							V
Maximum Reverse Current @ Rated VR T_A=25 ℃ T_A=125℃	I_R	5 100							uA
Typical Junction Capacitance (Note 2)	Cj	10							pF
Typical Thermal Resistance	$R_{\theta jA}$	80							^{O}C/W
Operating Temperature Range	T_J	- 65 to + 150							^{O}C
Storage Temperature Range	T_{STG}	- 65 to + 150							^{O}C

Note1: Pulse Test with PW=300 usec, 1% Duty Cycle

Note2: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

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RATINGS AND CHARACTERISTIC CURVES (1N4001G THRU 1N4007G)

FIG.1 MAXMUM FORWARD CURRENT DERATING CURVE

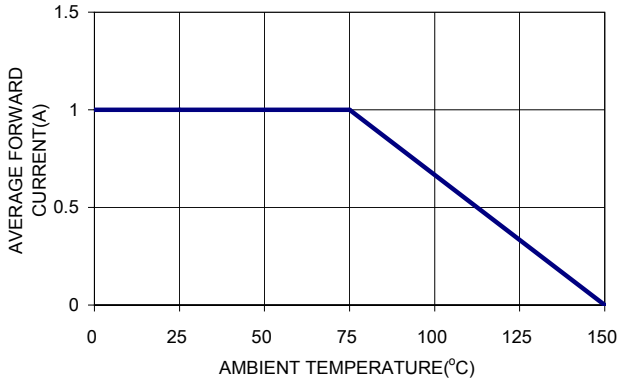

FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

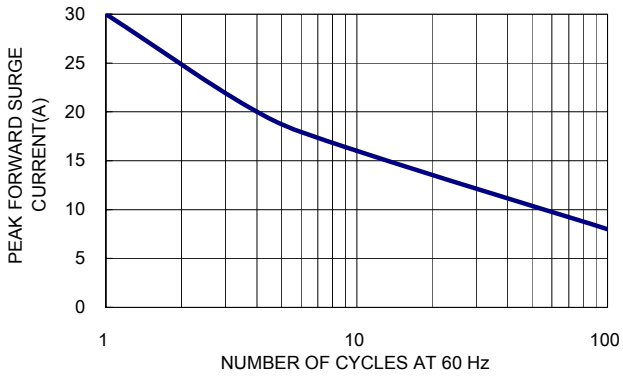

FIG. 3 TYPICAL FORWARD CHARACTERISTICS

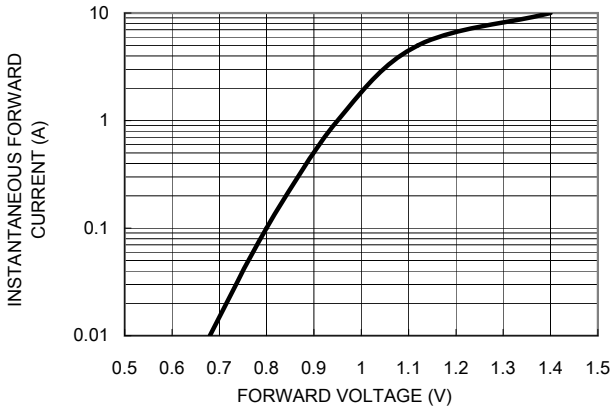

FIG. 4 TYPICAL REVERSE CHARACTERISTICS

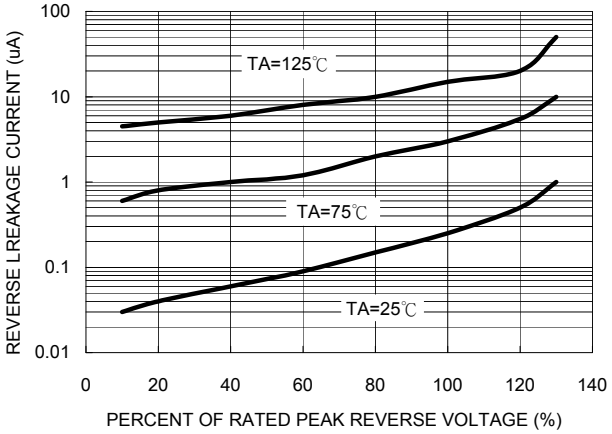

FIG. 5 TYPICAL JUNCTION CAPACITANCE