

Features

- ✧ Glass passivated chip junction
- ✧ High efficiency, Low VF
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability
- ✧ Low power loss
- ✧ $\phi 0.6\text{mm}$ leads
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode



Mechanical Data

- ✧ Cases: Molded plastic
- ✧ 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°C/10s
- ✧ Weight: 0.22 grams

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbol	1N	1N	1N	1N	1N	1N	1N	Units
		4001SG	4002SG	4003SG	4004SG	4005SG	4006SG	4007SG	
Maximum Recurrent 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	$I_{F(AV)}$	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 DC Reverse Current at @ $T_A=25^\circ\text{C}$	I_R	5							μA
Rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$		100							μA
Typical Junction Capacitance (Note 2)	C_j	10							pF
Typical Thermal Resistance	$R_{\theta JA}$	80							$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}	- 55 to + 150							$^\circ\text{C}$

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

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

RATINGS AND CHARACTERISTICS CURVES (1N4001SG THRU 1N4007SG)

FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE

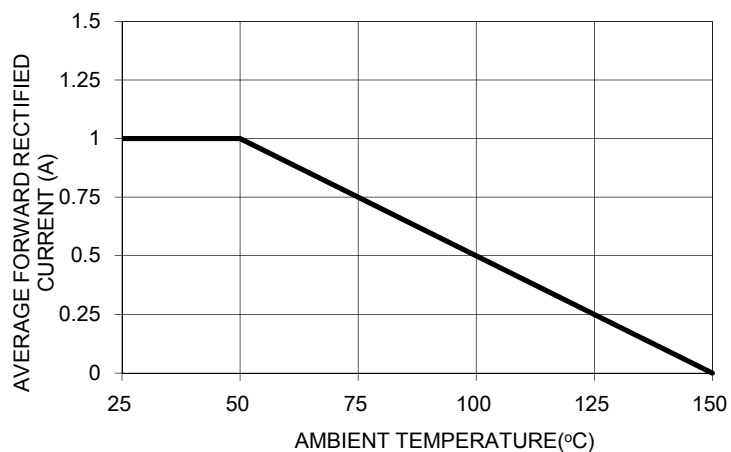


FIG. 2- TYPICAL REVERSE CHARACTERISTICS PER LEG

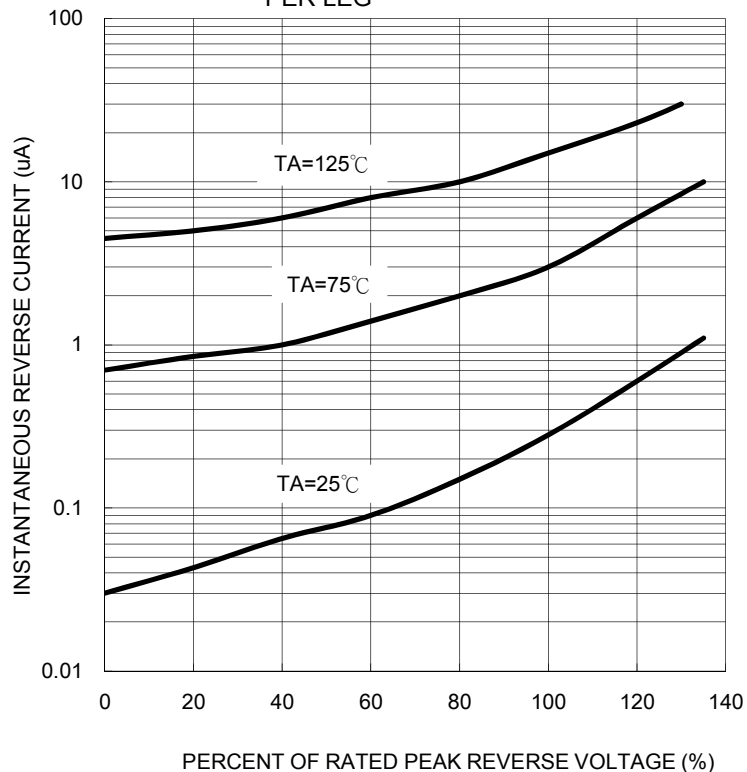


FIG. 3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

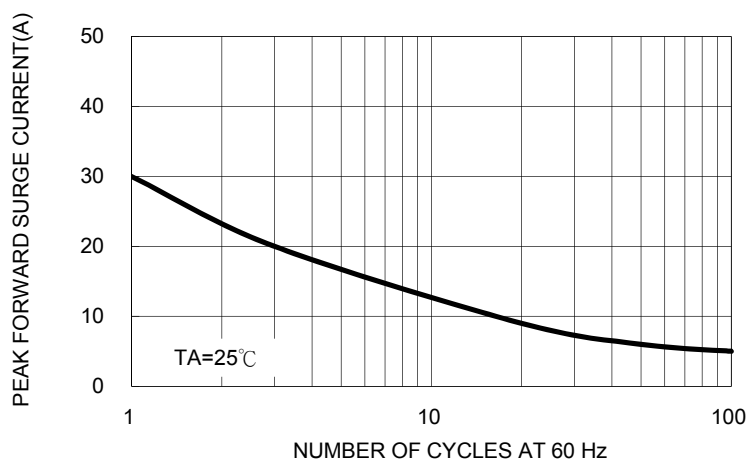


FIG. 4- TYPICAL JUNCTION CAPACITANCE

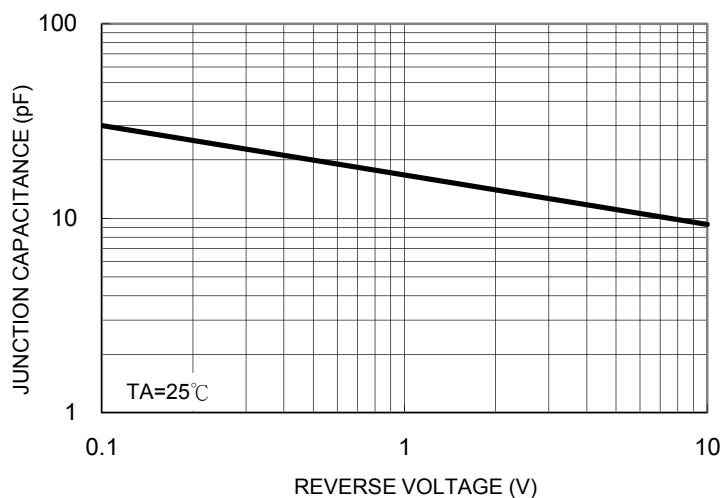
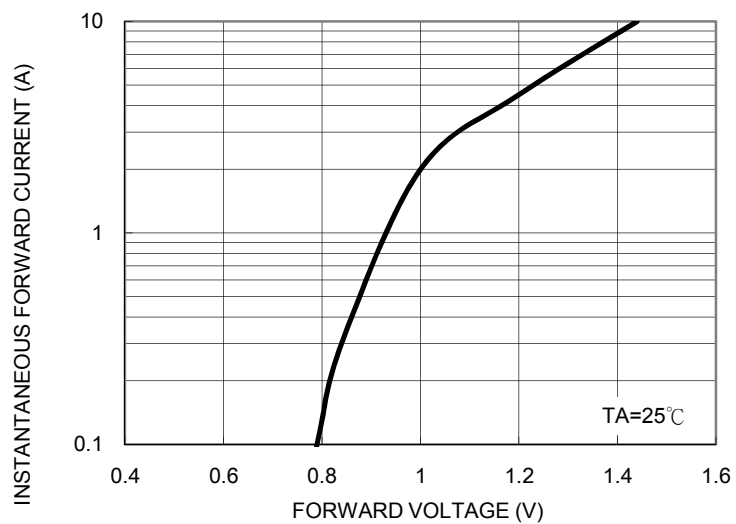


FIG. 5- TYPICAL FORWARD CHARACTERISTICS

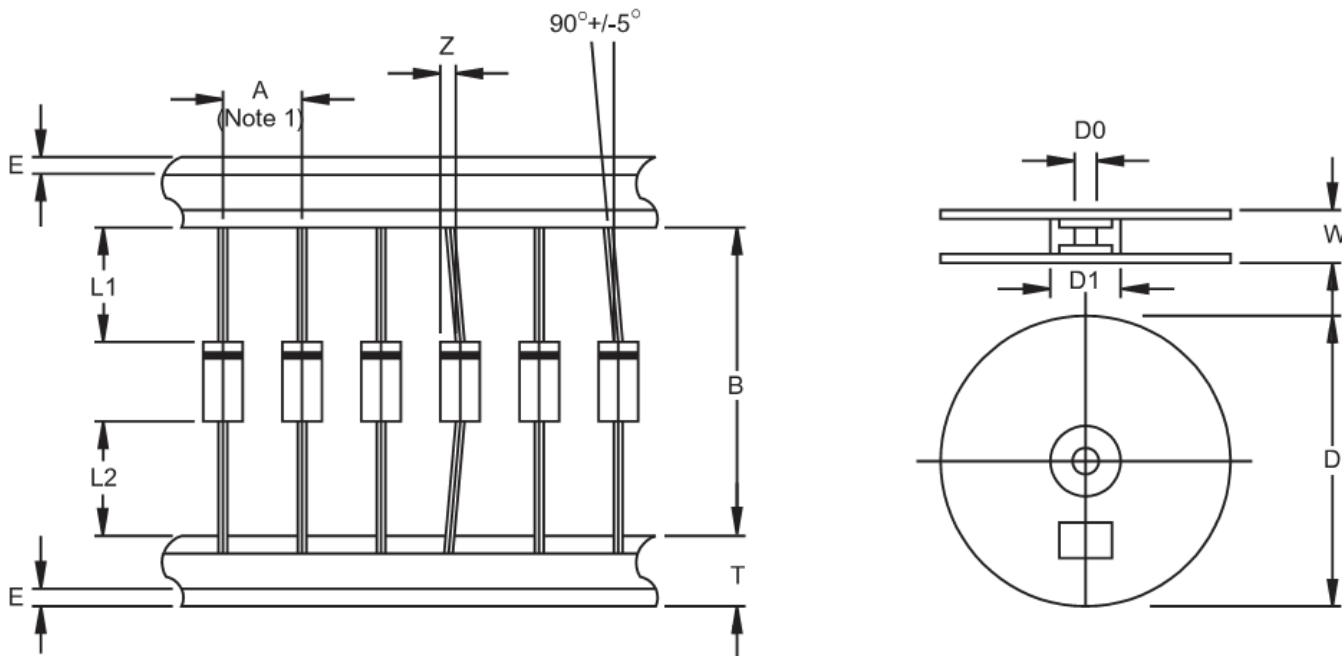


Ordering information (EXAMPLE)

Part No.	Package	Packing	INNER TAPE	Packing code	Packing code (Green)
1N400xSG (Note)	A-405	2K / AMMO box		P0	P0G
	A-405	2K / AMMO box		P1	P1G
	A-405	5K / 13" Reel	52mm	R0	R0G
	A-405	1K / Bulk packing		B0	B0G

Note: "x" is Device Code from "1" thru "7".

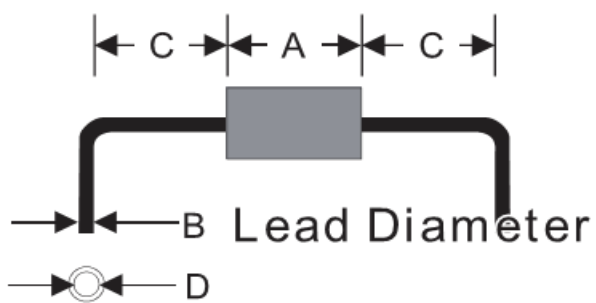
AXIAL LEAD TAPING SPECIFICATIONS



Outline	A	B	Z	T	E	L1-L2	D	D1	D0	W
	±0.5	±1.5	MAX	±0.4	MAX	MAX		±0.3	±0.4	±1.0
A-405	5	52.4	1.2	6	0.8	1	330	85.7	16.6	76

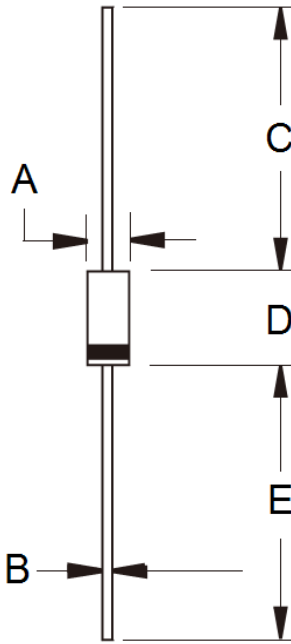
Unit (mm)

Suggested Mounting Hole Rule



Symbol	Unit(mm)
A	4.7
B	0.6
C	3.0
D	1

Dimensions



DIM.	Unit(mm)		Unit(inch)	
	Min	Max	Min	Max
A	2.00	2.70	0.079	0.106
B	0.53	0.64	0.021	0.025
C	25.40	-	1.000	-
D	4.20	5.20	0.165	0.205
E	25.40	-	1.000	-

Marking Diagram



- P/N = Specific Device Code
- G = Green Compound
- YW = Date Code
- F = Factory Code