

Features

- ✧ Glass passivated chip junction
- ✧ High current capability, low VF
- ✧ High reliability
- ✧ High surge current capability
- ✧ Low power loss
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode

Mechanical Data

- ✧ Case: 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
- ✧ Solder dip 260°C max.10s per JESD 22-B106
- ✧ Weight: 1.9 grams

Ordering Information

Part No.	Package	Packing	INNER TAPE	Packing code	Packing code (Green)
P2500M	P2500	500 / AMMO box	52mm	A0	A0G

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbol	P2500M	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1000	V
Maximum RMS Voltage	V_{RMS}	700	V
Maximum DC Blocking Voltage	V_{DC}	1000	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	25	A
Peak Forward Surge Current, 10 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	650	A
Rating for fusing, $t < 10ms$	I^2T	2100	A ² S
Maximum Instantaneous Forward Voltage (Note 1) $I_F=5A, T_A=25^\circ C$	V_F	0.87	V
Maximum Reverse Current @ Rated VR $T_A=25^\circ C$	I_R	5	uA
Typical Thermal Resistance	$R_{\theta JL}$	0.8 (Note 2)	°C/W
		6.0 (Note 3)	
Operating Junction Temperature Range - in DC forward mode	T_J	- 50 to + 175 ≤ 200	°C
Storage Temperature Range	T_{STG}	- 50 to + 175	°C

Note 1: Pulse Test : 300uS Pulse Width, 1% Duty Cycle

Note 2: Thermal resistance from junction to lead/terminal at a distance 0 mm from case.

Note 3: Mount on Heat sink size of 4in x 6in x 0.25in Al-Plate



RATINGS AND CHARACTERISTIC CURVES (P2500M)

FIG.1 FORWARD CURRENT DERATING CURVE

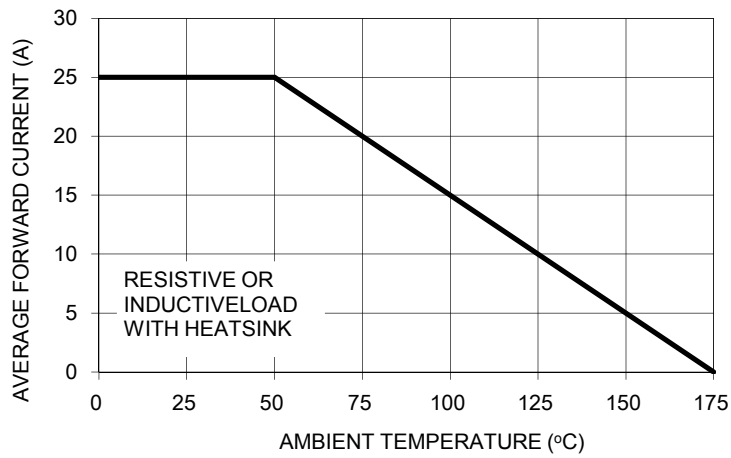


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

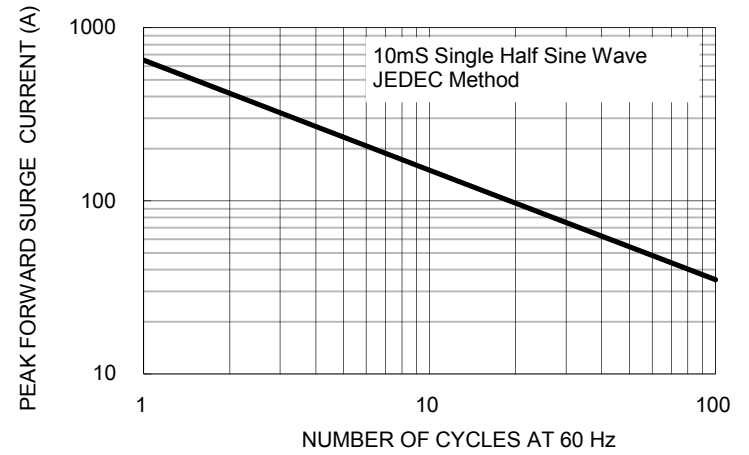


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

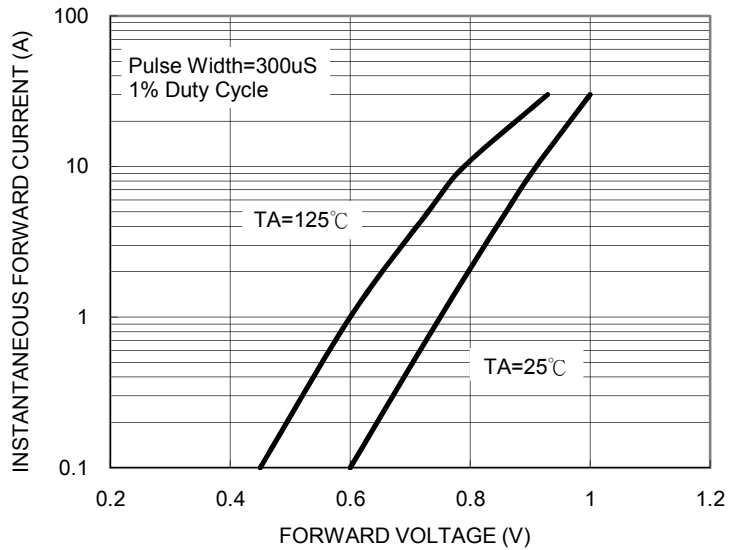


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

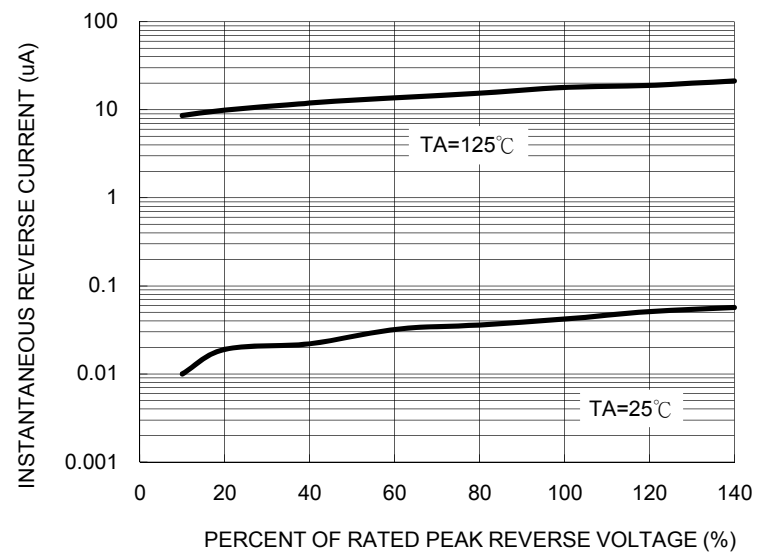
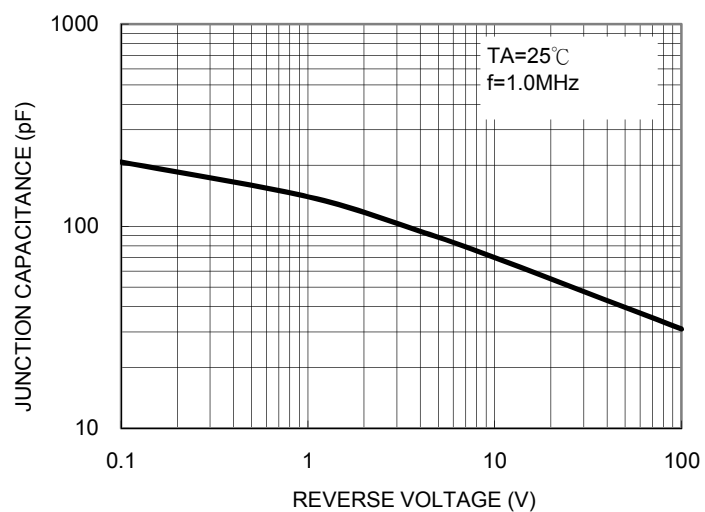
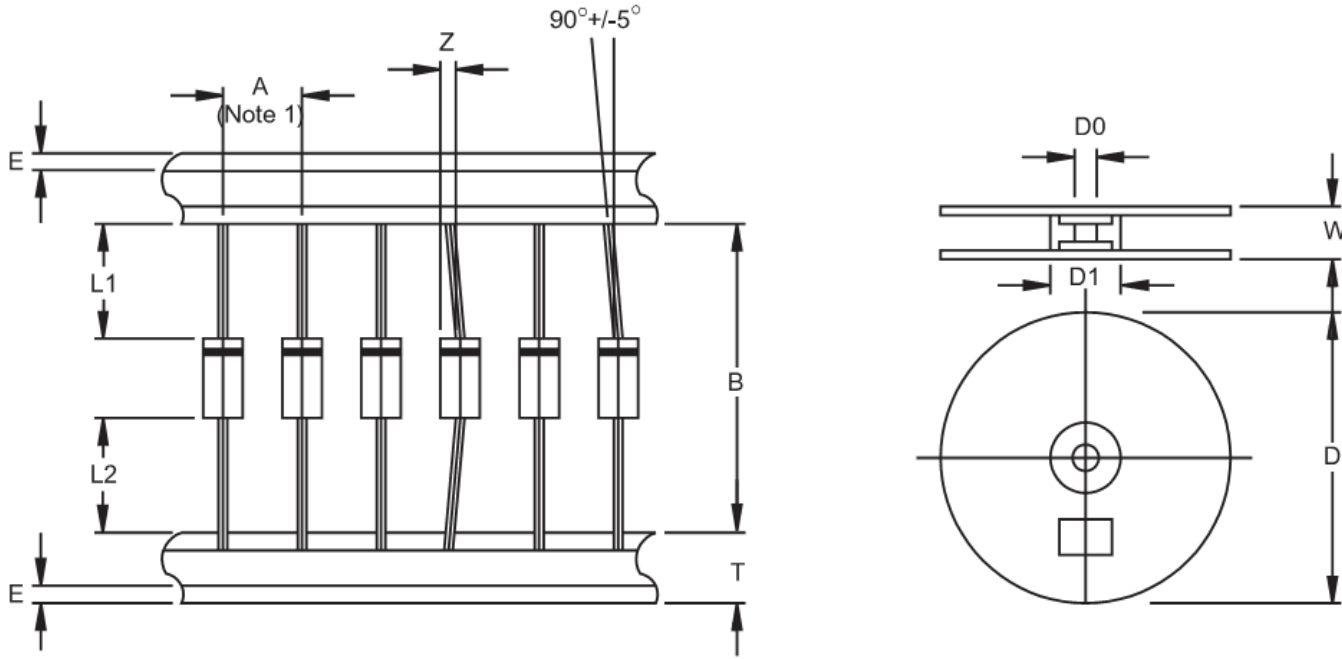


FIG. 5 TYPICAL JUNCTION CAPACITANCE



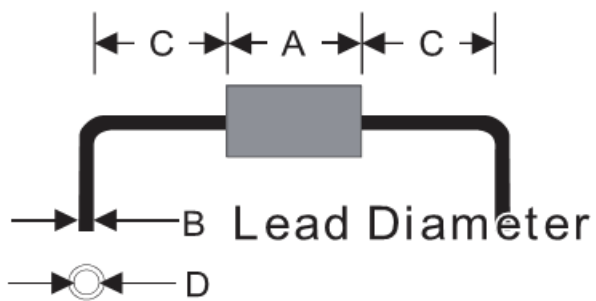
Ordering information

Part No.	Package	Packing	INNER TAPE	Packing code	Packing code (Green)
P2500M	P2500	500 / AMMO box	52mm	A0	A0G
	P2500	800 / 13" Reel	52mm	R0	R0G

AXIAL LEAD TAPING SPECIFICATIONS


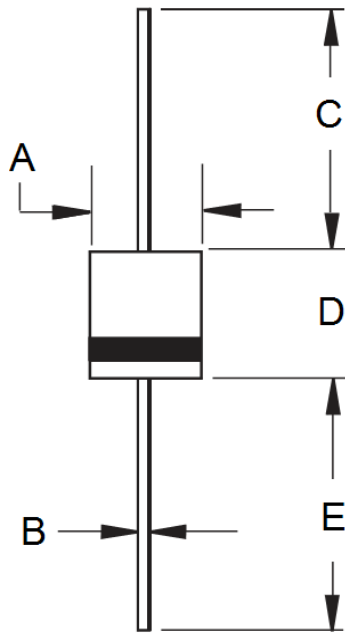
Outline	A	B	Z	T	E	L1-L2	D	D1	D0	W
		±0.5	±1.5	MAX	±0.4	MAX	MAX		±0.3	±0.4
P2500	10	52.4	1.2	6	0.8	1	330	85.7	16.6	76

Unit (mm)

Suggested Mounting Hole Rule


Symbol	Unit(mm)
A	7.8
B	1.25
C	4.0
D	1.5

Dimensions



DIM.	Unit(mm)		Unit(inch)	
	Min	Max	Min	Max
A	7.8	8.2	0.307	0.323
B	1.2	1.3	0.047	0.051
C	25.4	-	1.000	-
D	7.55	8.05	0.297	0.317
E	25.4	-	1.000	-

Marking Diagram



P/N = Specific Device Code
 G = Green Compound
 YWW = Date Code