

Features

- Halogen Free. "Green" Device (Note 1)
- Glass Passivated Junction
- Extremely Low Thermal Resistance
- Lead Free Finish/RoHS Compliant (Note2) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 15°C/W Junction to Case (Note3)
- Thermal Resistance: 20°C/W Junction to Lead (Note3)
- Thermal Resistance: 65°C/W Junction to Ambient (Note3)

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
GS1ZFL	GS1Z	2000V	1400V	2000V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.0A	$T_L = 110^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	30A	8.3ms, Half Sine
Maximum Instantaneous Forward Voltage	V_F	1.15V	$I_{FM} = 1.0A; T_J = 25^\circ\text{C} *$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	1µA 50µA	$T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$
Typical Reverse Recovery Time	t_{rr}	2.5µs	$I_F=0.5A, I_R=1.0A, I_{RR}=0.25A$

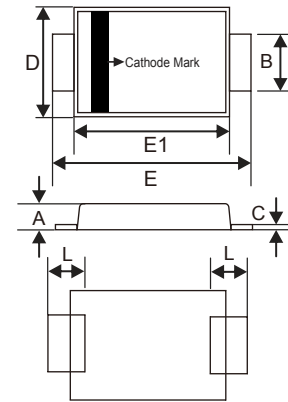
*Pulse Test: Pulse Width 300 µsec, Duty Cycle 2%

Note:

1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. High Temperature Solder Exemption Applied, See EU Directive Annex 7a.
3. Mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) Copper Pad Areas.

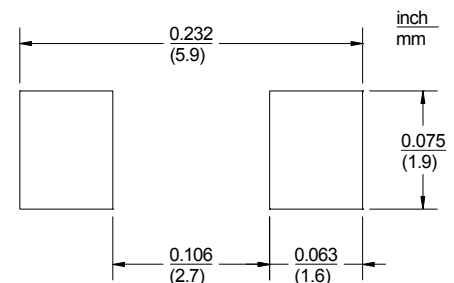
1 Amp Glass Passivated Rectifier 2000 Volts

DO-221AC(SMA-FL)



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.035	0.049	0.90	1.25	
B	0.049	0.065	1.25	1.65	
C	0.004	0.016	0.10	0.40	
D	0.089	0.116	2.25	2.95	
E	0.173	0.220	4.40	5.60	
E1	0.126	0.181	3.20	4.60	
L	0.020	0.059	0.50	1.50	

Suggested Solder Pad Layout



Curve Characteristics

Fig. 1 - Forward Current Derating Curve

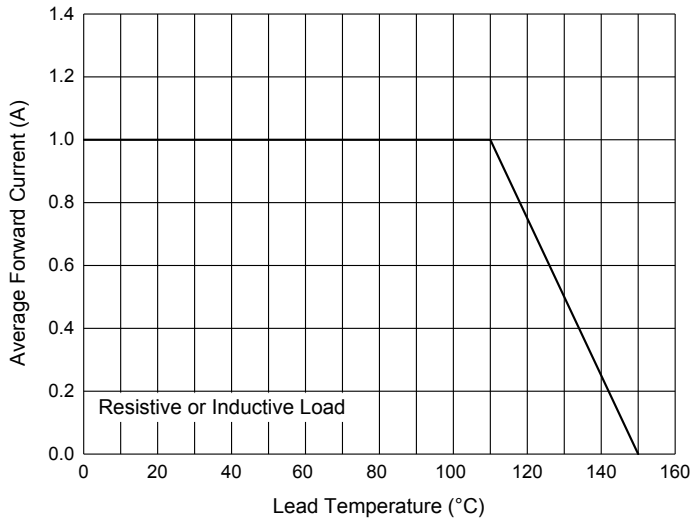


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

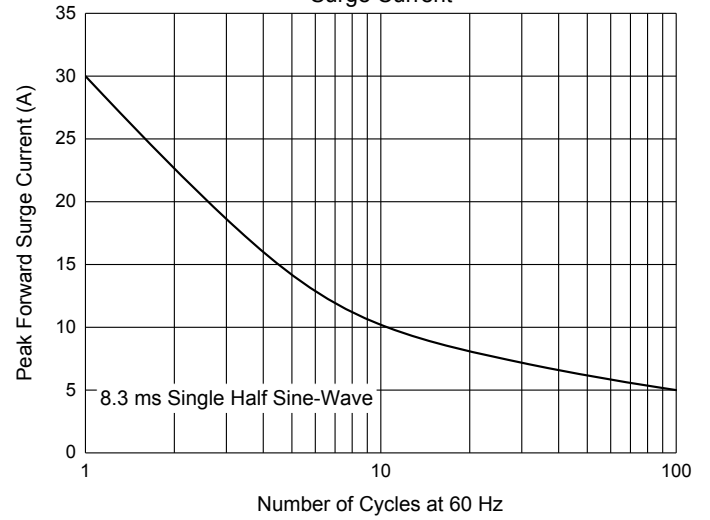


Fig. 3 - Typical Instantaneous Forward Characteristics

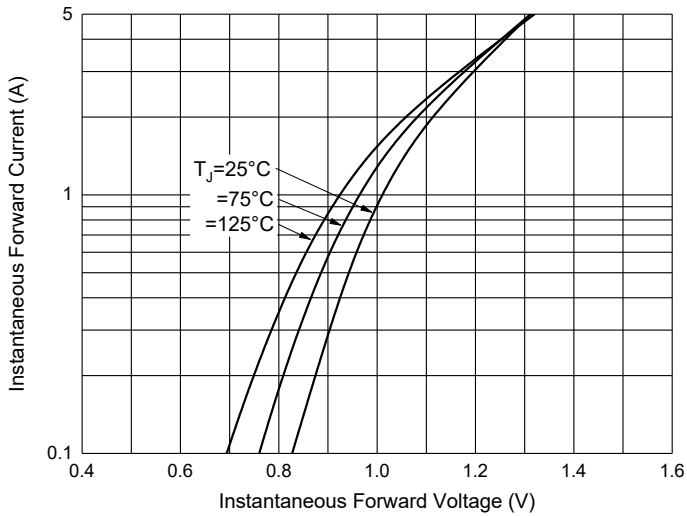
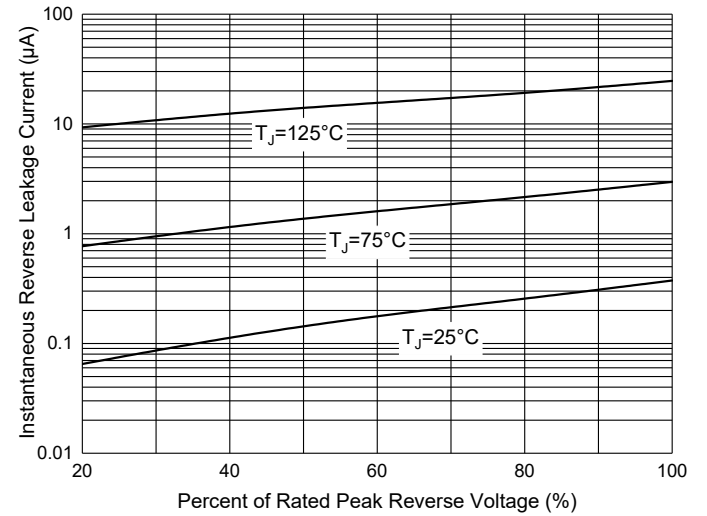


Fig. 4 - Typical Reverse Leakage Characteristics



Ordering Information

Device	Packing
GS1ZFL-TP	Tape&Reel: 10Kpcs/Reel

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