

## Features

- Halogen Free. "Green" Device (Note 1)
- Low Current Leakage And Low Cost
- 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
- Maximum Thermal Resistance: 15°C/W Junction to Lead
- Maximum Thermal Resistance: 85°C/W Junction to Ambient

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
GS1AE	GS1A	50V	35V	50V
GS1BE	GS1B	100V	70V	100V
GS1DE	GS1D	200V	140V	200V
GS1GE	GS1G	400V	280V	400V
GS1JE	GS1J	600V	420V	600V
GS1KE	GS1K	800V	560V	800V
GS1ME	GS1M	1000V	700V	1000V

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.0A	$T_A = 75^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	30A	8.3ms, Half Sine
Maximum Instantaneous Forward Voltage	$V_F$	1.1V	$I_{FM} = 1.0\text{A}; T_J = 25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	5 $\mu\text{A}$ 50 $\mu\text{A}$	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$
Typical Junction Capacitance	$C_J$	15pF	Measured at 1.0MHz, $V_R = 4.0\text{V}$
Typical Reverse Recovery Time	$t_{rr}$	2.0 $\mu\text{s}$	$I_F = 0.5\text{A}, I_R = 1.0\text{A}, I_{rr} = 0.25\text{A}$
Rating For Fusing	$I^2t$	3.735A <sup>2</sup> s	

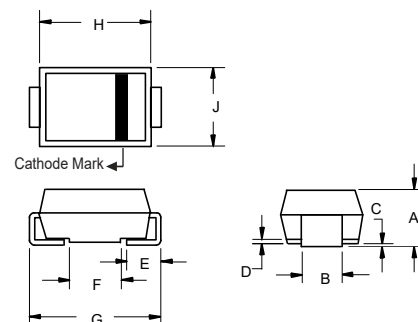
\*Pulse Test: Pulse Width 300  $\mu\text{sec}$ , Duty Cycle 2%

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.

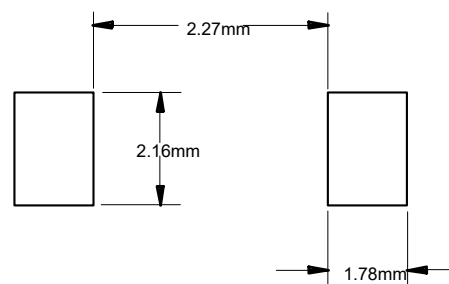
# 1 Amp Silicon Rectifier 50 - 1000 Volts

## SMA (DO-214AC)



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.075	0.096	1.90	2.44	
B	0.050	0.064	1.27	1.63	
C	0.002	0.008	0.051	0.203	
D	---	0.020	---	0.51	
E	0.030	0.060	0.76	1.52	
F	0.065	0.091	1.65	2.32	
G	0.189	0.220	4.80	5.59	
H	0.157	0.187	4.00	4.75	
J	0.090	0.115	2.25	2.92	

## SUGGESTED SOLDER PAD LAYOUT



**Curve Characteristics**

Fig. 1 - Typical Instantaneous Forward Characteristics

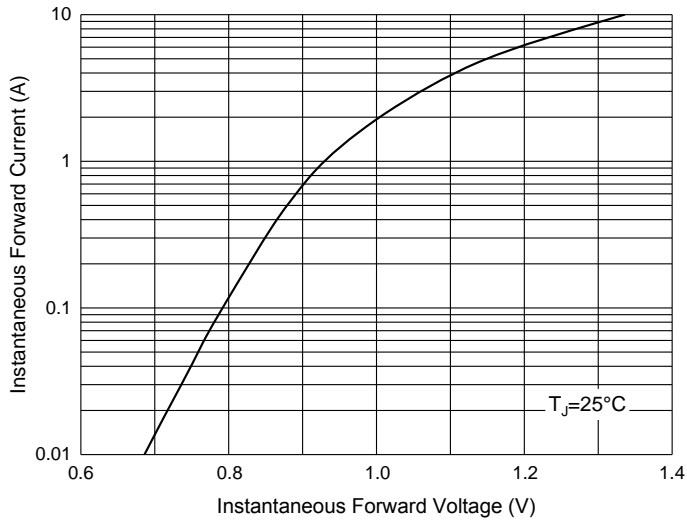


Fig. 2 - Typical Reverse Leakage Characteristics

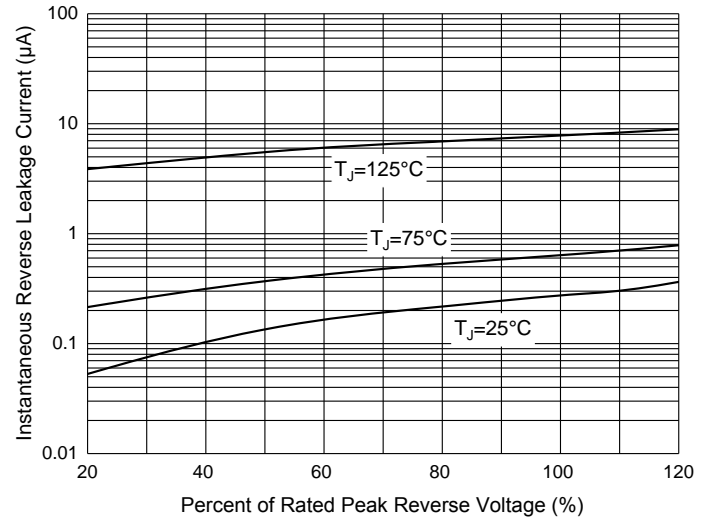


Fig. 3 - Forward Current Derating Curve

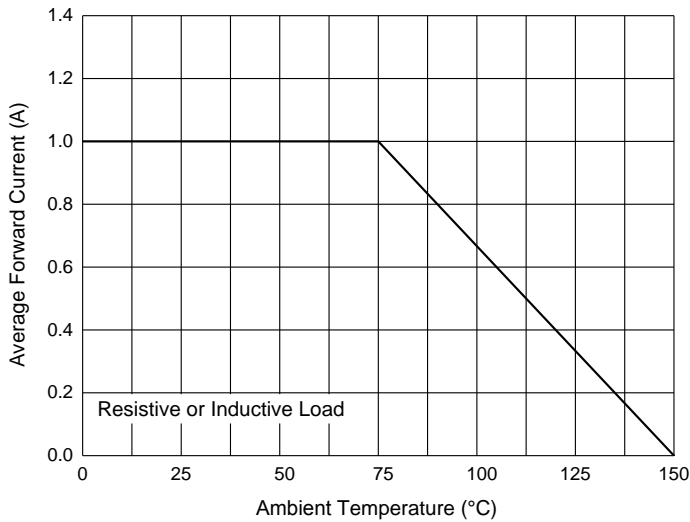
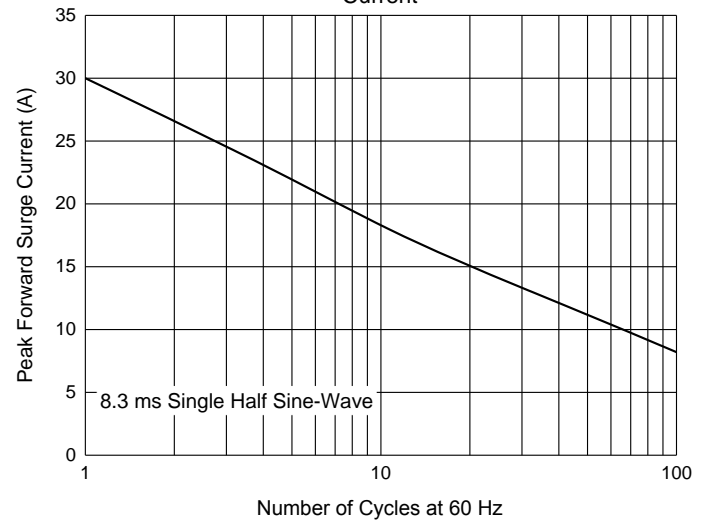


Fig. 4 - Maximum Non-Repetitive Peak Forward Surge Current



## Ordering Information

Device	Packing
Part Number-TP	Tape&Reel:6Kpcs/Reel

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