



Micro Commercial Components



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GS1AE THRU GS1ME

Features

- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Easy Pick And Place
- 260C for 10s and 230 for 45s of High Temp. Soldering
- Low Thermal Resistance
- Halogen free available upon request by adding suffix "-HF"

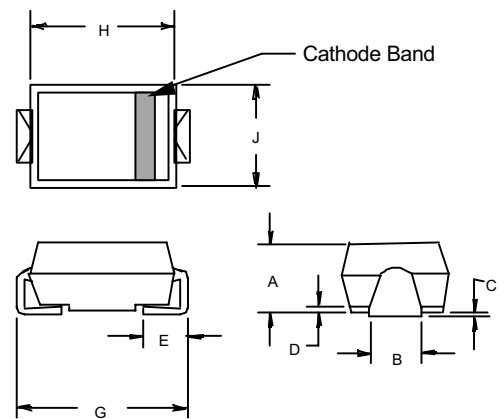
Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 15°C/W Junction To Lead
85°C/W Junction To Ambient

MCC Catalog 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

1.0 Amp Silicon Rectifier 50 to 1000 Volts

DO-214AC (SMAE)



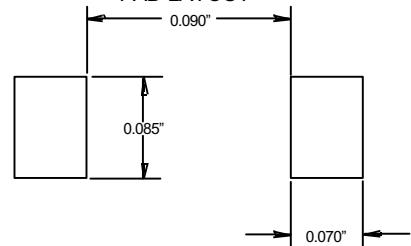
DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.079	.096	2.01	2.44	
B	.011	.0075	0.28	0.19	
C	.002	.008	.05	.20	
D	—	.02	—	.51	
E	.030	.060	.76	1.52	
G	.189	.208	4.80	5.30	
H	.157	.180	4.00	4.57	
J	.090	.115	2.29	2.92	

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward current	$I_{F(AV)}$	1.0A	$T_J = 75^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	30A	8.3ms, half sine,
Maximum Instantaneous Forward Voltage	V_F	1.1V	$I_{FM} = 1.0A;$ $T_J = 25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	5 μA 50 μA	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$
Typical Junction Capacitance	C_J	15pF	Measured at 1.0MHz, $V_R=4.0V$
Typical Reverse Recovery Time	T_{rr}	2000ns	$I_F=0.5A, I_R=1.0A,$ $I_{rr}=0.25A$
Rating for Fusing	I^2t	3.735A ² s	

SUGGESTED SOLDER PAD LAYOUT



*Pulse test: Pulse width 300 μsec , Duty cycle 2%

Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7.

GS1AE thru GS1ME

Figure 1
Typical Forward Characteristics

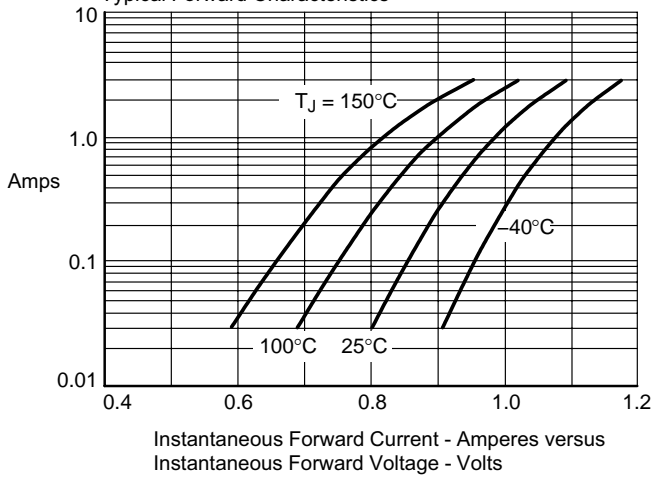


Figure 2
Maximum Forward Surge Current

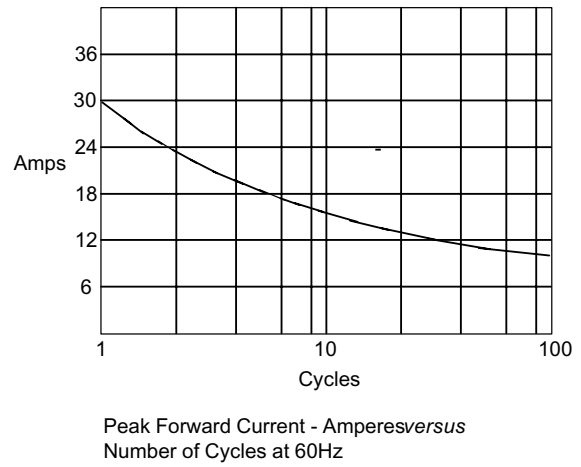


Figure 3
Forward Derating Curve

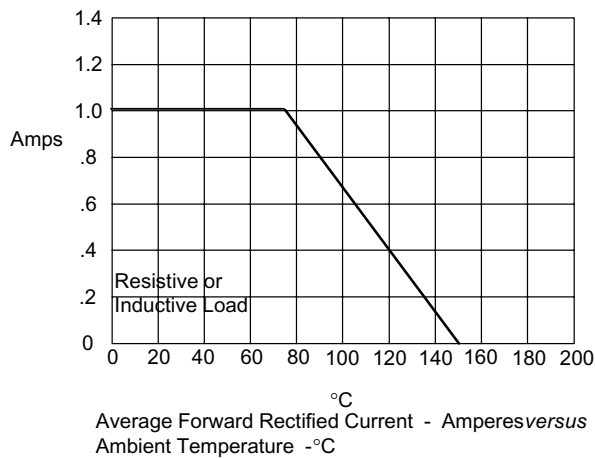
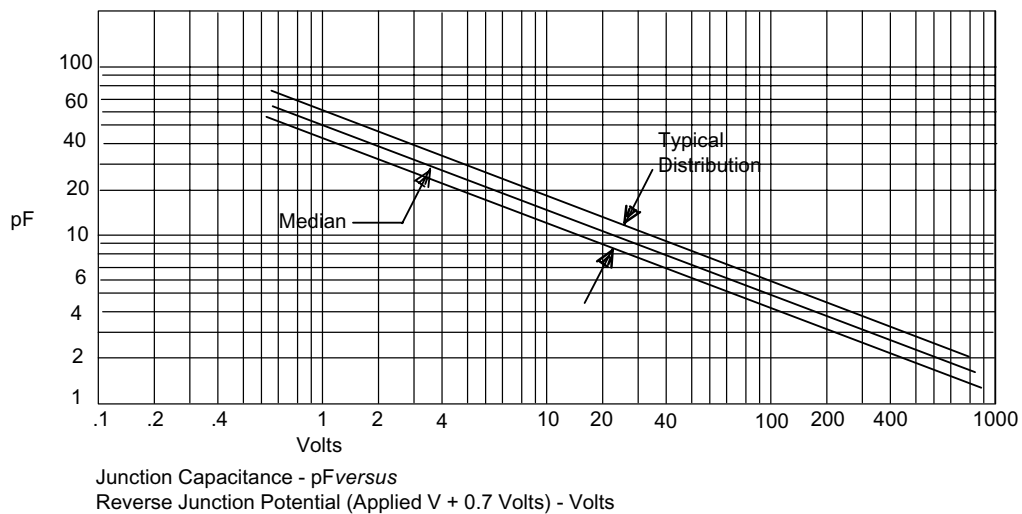
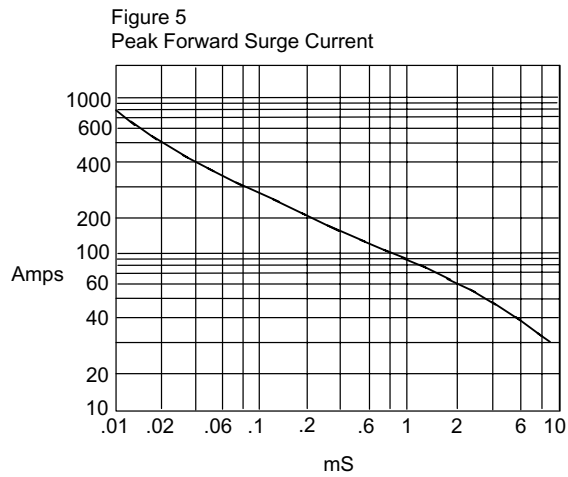


Figure 4
Junction Capacitance



GS1AE thru GS1ME



Peak Forward Surge Current - Amperes versus
Pulse Duration - Milliseconds (mS)



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Ordering Information :

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

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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