



Micro Commercial Components
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GS1A THRU GS1M

Features

- For Surface Mount Applications
- Extremely Low Thermal Resistance
- Easy Pick And Place
- High Temp Soldering: 250°C for 10 Seconds At Terminals

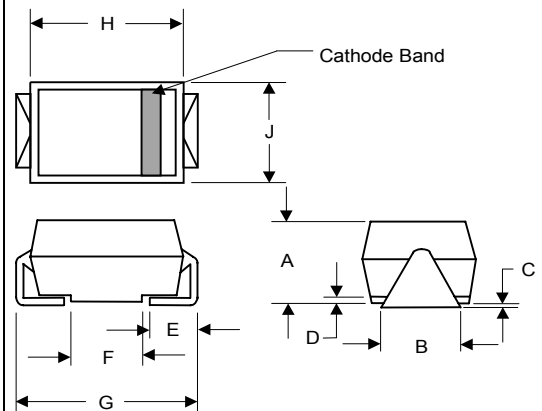
1 Amp Silicon Rectifier 50 to 1000 Volts

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

MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
GS1A	GS1A	50V	35V	50V
GS1B	GS1B	100V	70V	100V
GS1D	GS1D	200V	140V	200V
GS1G	GS1G	400V	280V	400V
GS1J	GS1J	600V	420V	600V
GS1K	GS1K	800V	560V	800V
GS1M	GS1M	1000V	700V	1000V

DO-214AC (SMAJ) (High Profile)

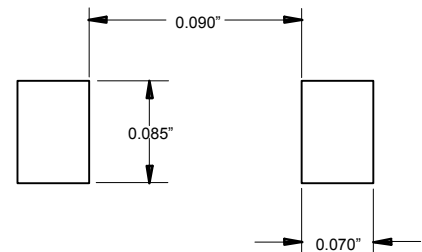


DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.078	.116	1.98	2.95	
B	.067	.089	1.70	2.25	
C	.002	.008	.05	.20	
D	---	.02	---	.51	
E	.035	.065	.89	1.40	
F	.065	.096	1.65	2.45	
G	.205	.224	5.21	5.69	
H	.160	.180	4.06	4.57	
J	.100	.112	2.57	2.84	

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	10 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, $V_R=4.0V$

SUGGESTED SOLDER PAD LAYOUT



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

Figure 1
Typical Forward Characteristics

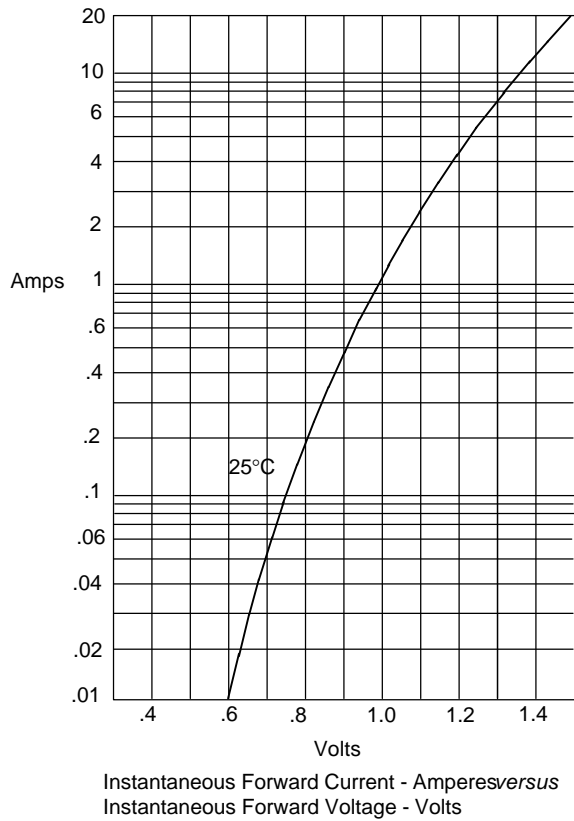


Figure 3
Maximum Overload Surge Current

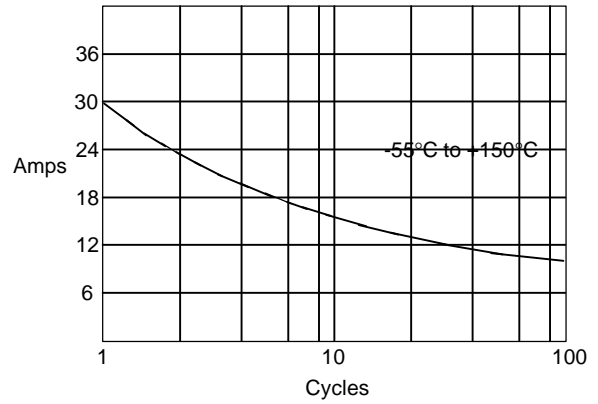


Figure 4
Forward Derating Curve

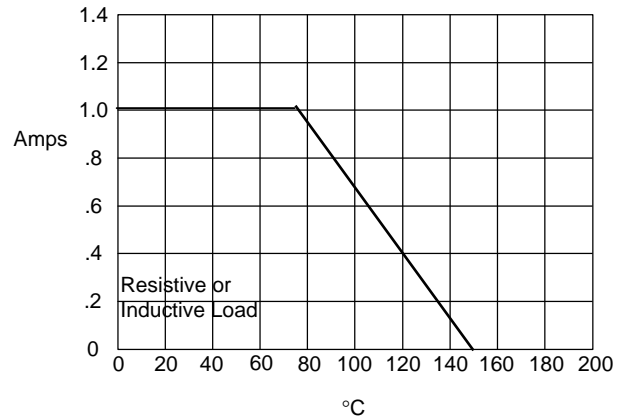
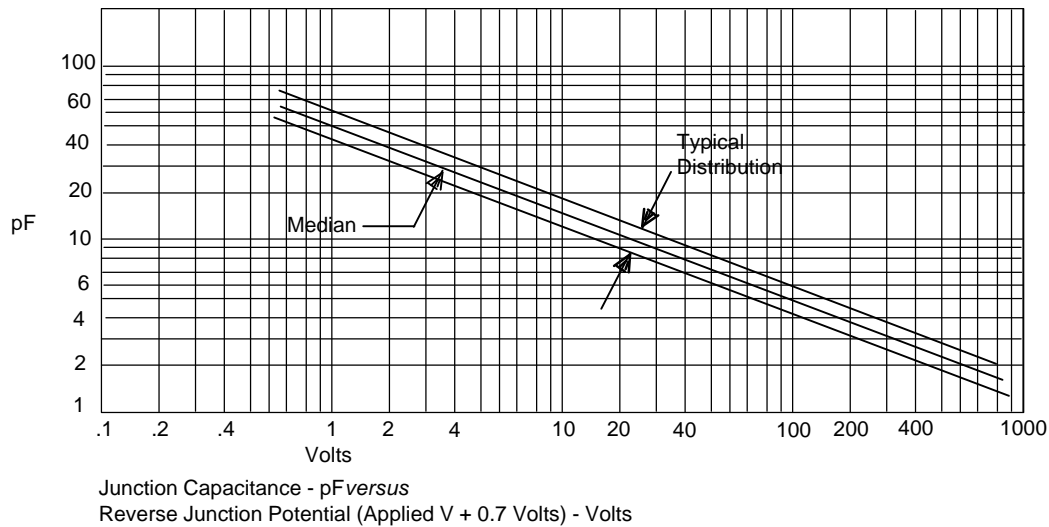


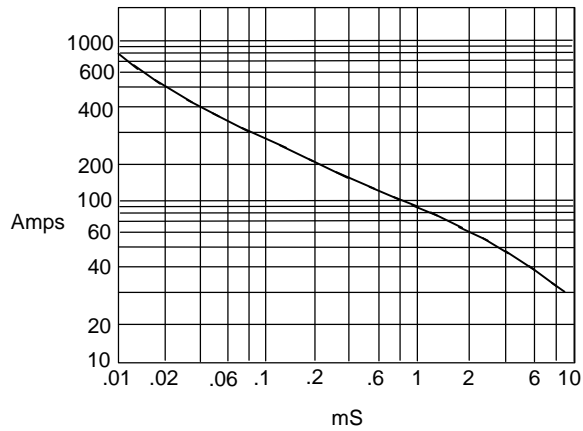
Figure 2
Junction Capacitance



GS1A thru GS1M

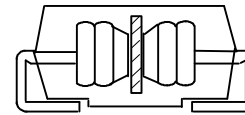


Figure 5
Peak Forward Surge Current



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

Figure 6
New SMA Assembly



Round Lead
Process