THE DATASHEET OF

S1G-TP

NOT RECOMMENDED FOR NEW DESIGNS
USE S1A-LTP~S1M-LTP SERIES

Micro Commercial Components

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20736 Marilla Street Chatsworth
CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

S1A THRU S1M

1 Amp Silicon Rectifier 50 to 1000 Volts

Features

- Lead Free Finish/Rohs Compliant (Note1) ("P"Suffix designates Compliant. See ordering information)
- For Surface Mount Applications
- Extremely Low Thermal Resistance
- Easy Pick And Place
- High Temp Soldering: 260°C for 10 Seconds At Terminals
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 30°C/W Junction To Lead

MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
S1A	S1A	50V	35V	50V
S1B	S1B	100V	70V	100V
S1D	S1D	200V	140V	200V
S1G	S1G	400V	280V	400V
S1J	S1J	600V	420V	600V
S1K	S1K	800V	560V	800V
S1M	S1M	1000V	700V	1000V

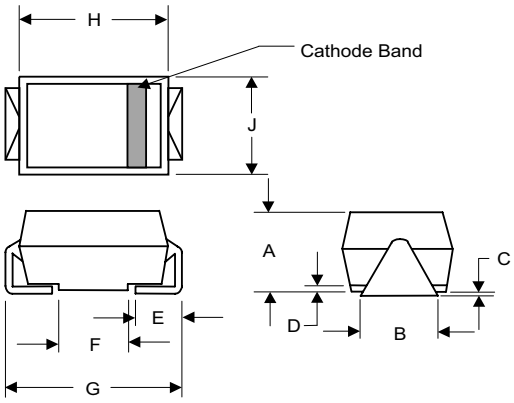
Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward current	$I_{F(AV)}$	1.0A	T_J = 100°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°C*
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	5µA 50µA	T_J = 25°C T_J = 125°C
Typical Junction Capacitance	C_J	12pF	Measured at 1.0MHz, V_R=4.0V
Maximum Reverse Recovery Time	T_{rr}	2.0µs	I_F = 0.5A; I_R = 1.0A; I_{rr} = 0.25A;

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

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

DO-214AA
(SMB) (Round Lead)



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	.078	.116	1.98	2.95	
B	.075	.089	1.90	2.25	
C	.002	.008	.05	.20	
D	-----	.02	-----	.51	
E	.035	.055	.90	1.40	
F	.065	.091	1.65	2.32	
G	.205	.224	5.21	5.69	
H	.160	.180	4.06	4.57	
J	.130	.155	3.30	3.94	

SUGGESTED SOLDER PAD LAYOUT

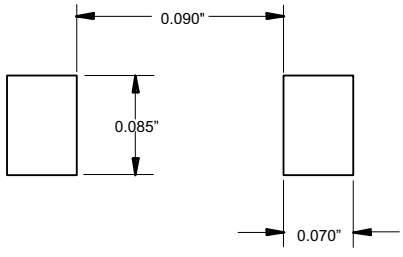
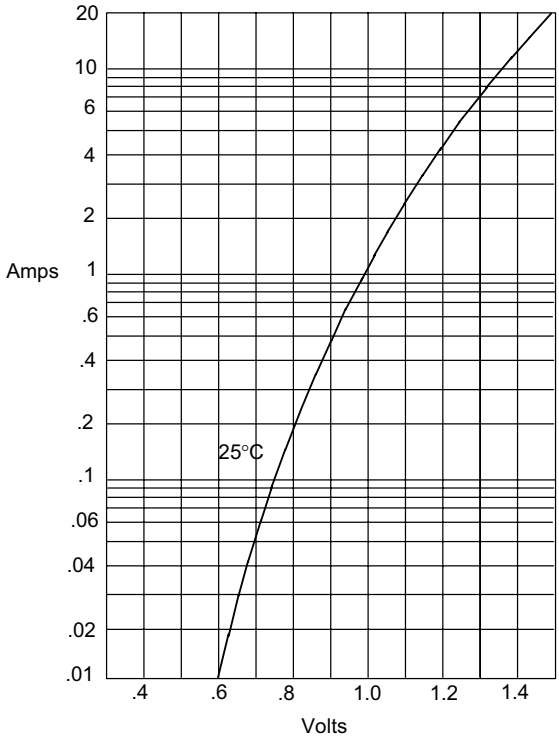
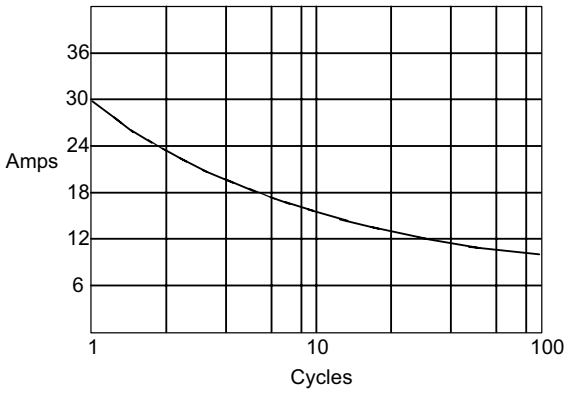


Figure 1
Typical Forward Characteristics



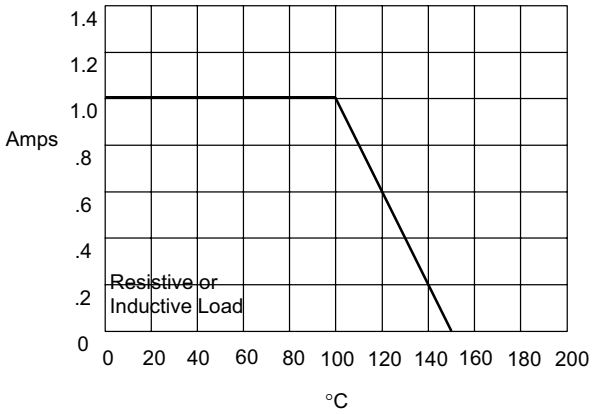
Instantaneous Forward Current - Amperes*versus*
Instantaneous Forward Voltage - Volts

Figure 3
Maximum Overload Surge Current



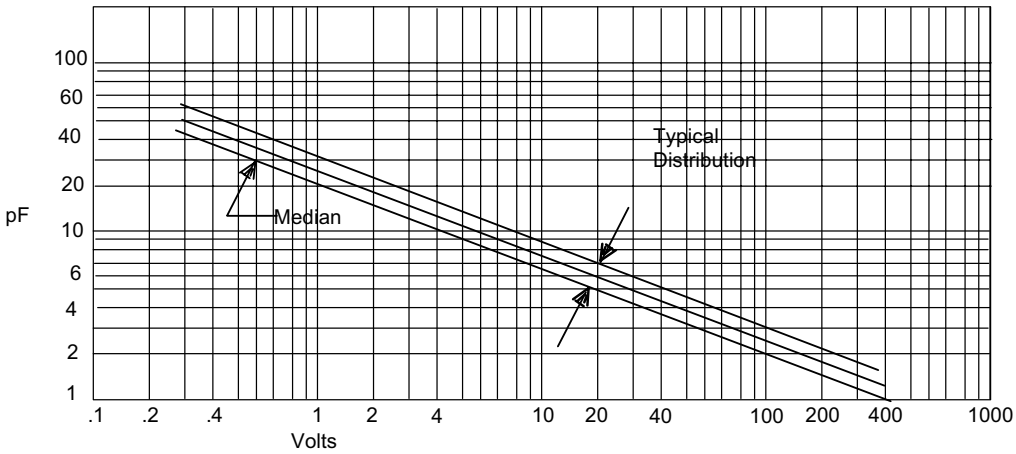
Peak Forward Current - Amperes*versus*
Number of Cycles at 60Hz

Figure 4
Forward Derating Curve



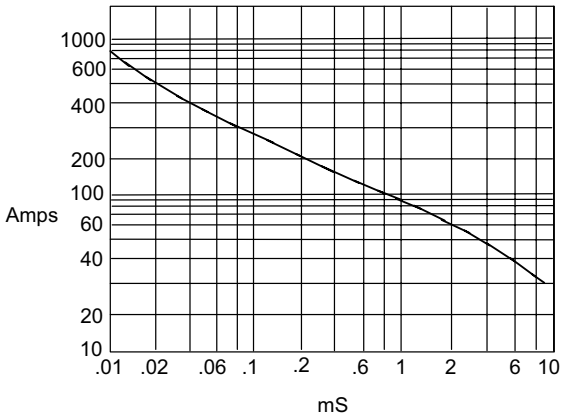
Average Forward Rectified Current - Amperes*versus*
Ambient Temperature -°C

Figure 2
Junction Capacitance



Junction Capacitance - pF*versus*
Reverse Junction Potential (Applied V + 0.7 Volts) - Volts

Figure 5
Peak Forward Surge Current



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

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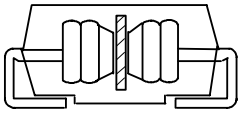
Figure 6
New SMB Assembly



Round Lead
Process

Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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