

### Features

- Lead Free Finish/RoHS Compliant (Note1) ("P"Suffix Designates Compliant. See Ordering Information)
- For Surface Mount Applications
- Halogen Free. "Green" Device (Note 2)
- Extremely Low Thermal Resistance
- 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: 30°C/W Junction to Lead

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



Average Forward Current	I <sub>F(AV)</sub>	1.0A	T <sub>L</sub> =100°C
Peak Forward Surge Current	I <sub>FSM</sub>	30A	8.3ms,Half Sine
Maximum Instantaneous Forward Voltage	V <sub>F</sub>	1.1V	I <sub>FM</sub> =1.0A; T <sub>J</sub> =25⁰C*
Maximum DC Reverse Current At Rated DC Blocking Voltage	I <sub>R</sub>	5μΑ 50μΑ	Tյ=25⁰C; Tյ=125⁰C
Typical Junction Capacitance	CJ	12pF	Measured at 1.0MHz V <sub>R</sub> =4.0V
Maximum Reverse Recovery Time	t <sub>rr</sub>	2.0µs	I <sub>F</sub> = 0.5A;I <sub>R</sub> = 1.0A; Irr = 0.25A;

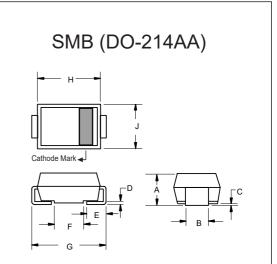
\*Pulse Test: Pulse Width 300 µsec, Duty Cycle 2%

Note:

1. High Temperature Solder Exemptions Applied, See EU Directive Annex 7a.

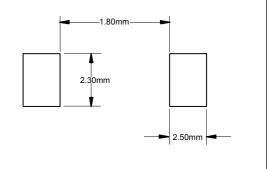
2. Halogen free "Green"products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

# 1 Amp Silicon Rectifier 50 to 1000 Volts



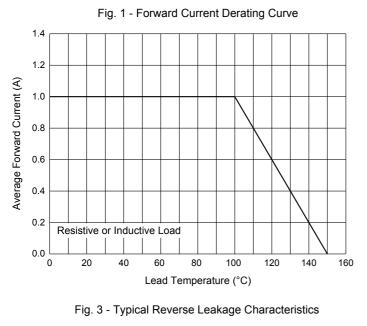
	DIMENSIONS					
DIM	INCHES		MM		NOTE	
	MIN	MAX	MIN	MAX	NOTE	
Α	0.079	0.103	2.00	2.62		
В	0.075	0.087	1.91	2.21		
С	0.002	0.008	0.05	0.20		
D	0.006	0.012	0.15	0.31		
E	0.030	0.060	0.76	1.52		
F	0.065	0.091	1.65	2.32		
G	0.200	0.220	5.08	5.59		
Н	0.160	0.191	4.06	4.85		
J	0.130	0.155	3.30	3.94		

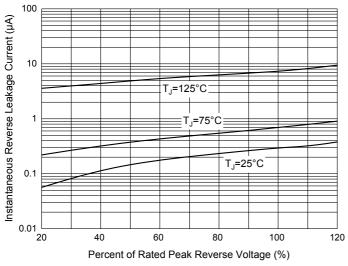
#### Suggested Solder Pad Layout

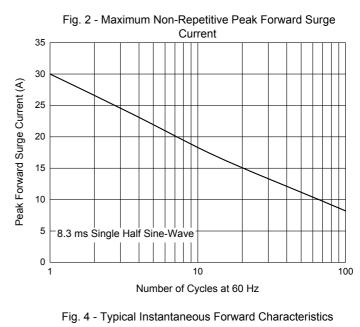


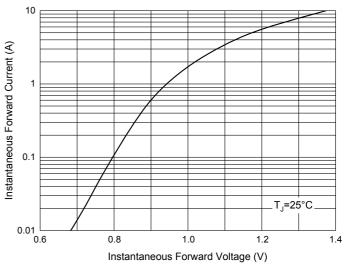


# **Curve Characteristics**











# **Ordering Information**

Device	Packing	
S1A-LTP~S1M-LTP	Tape&Reel: 3Kpcs/Reel	

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