



Micro Commercial Components



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S1A-L THRU S1M-L

Features

- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)
- For Surface Mount Applications
- Halogen free available upon request by adding suffix "-HF"
- 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-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

Electrical Characteristics @ 25°C Unless Otherwise Specified

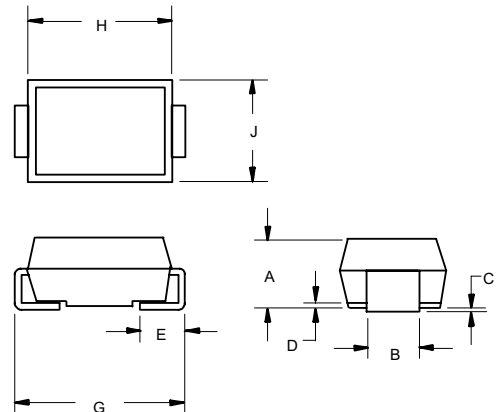
Average Forward current	$I_{F(AV)}$	1.0A	$T_J = 100^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	30A	8.3ms, half sine,
Maximum Instantaneous Forward Voltage	V_F	1.1V	$I_{FM} = 1.0A;$ $T_J = 25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	5 μA 50 μA	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$
Typical Junction Capacitance	C_J	12pF	Measured at 1.0MHz, $V_R = 4.0V$
Maximum Reverse Recovery Time	T_{rr}	2.0 μs	$I_F = 0.5A; I_R = 1.0A;$ $I_{rr} = 0.25A;$

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

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

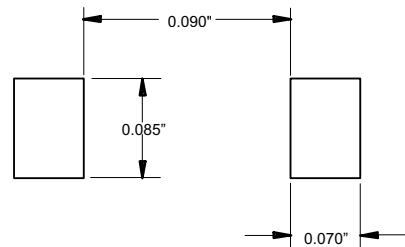
1 Amp Silicon Rectifier 50 to 1000 Volts

DO-214AA (SMB) (Lead Frame)



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.075	.095	1.91	2.41	
B	.077	.083	1.96	2.10	
C	.002	.008	.05	.20	
D	---	.02	---	.51	
E	.030	.060	.76	1.52	
G	.200	.220	5.08	5.59	
H	.160	.187	4.06	4.75	
J	.130	.155	3.30	3.94	

SUGGESTED SOLDER PAD LAYOUT



S1A-L thru S1M-L

Figure 1
Typical Forward Characteristics

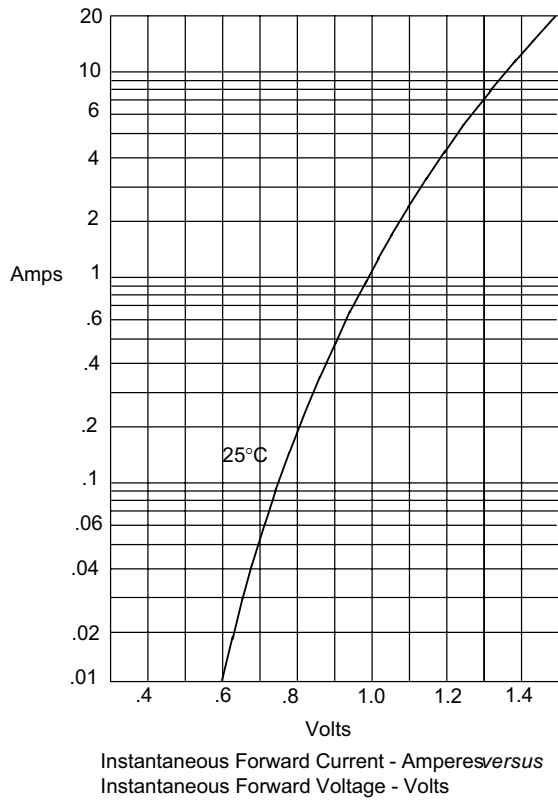
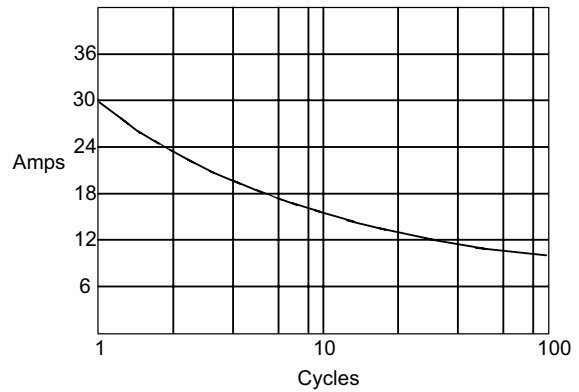
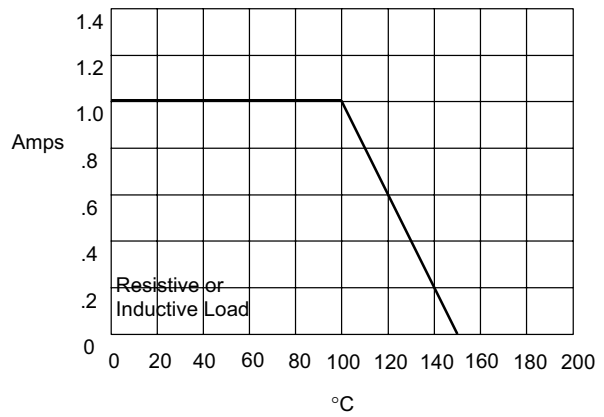


Figure 3
Maximum Overload Surge Current



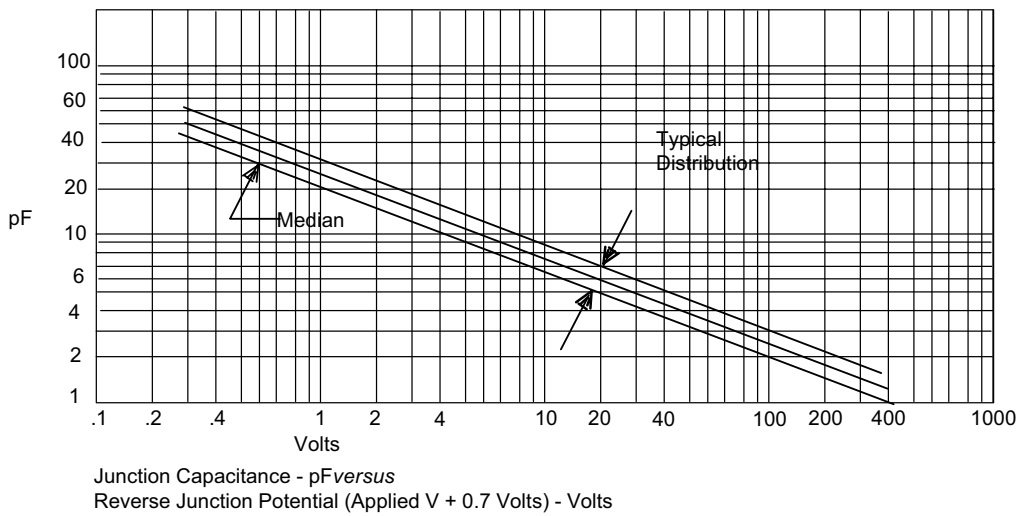
Peak Forward Current - Amperes versus
Number of Cycles at 60Hz

Figure 4
Forward Derating Curve



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

Figure 2
Junction Capacitance





TM

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Ordering Information :

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

Note : Adding "-HF" suffix for halogen free, eg. S1A-LTP-HF~S1M-LTP-HF

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