

**NOT RECOMMENDED FOR NEW DESIGNS  
USE S2A-LTP~S2M-LTP SERIES**



Micro Commercial Components



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

**S2A  
THRU  
S2M**

**2 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
- 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
- Power Dissipation : 2.35W

**Maximum Ratings**

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Thermal Resistance; 16°C/W Junction To Lead  
53°C/W Junction To Ambient

MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
S2A	S2A	50V	35V	50V
S2B	S2B	100V	70V	100V
S2D	S2D	200V	140V	200V
S2G	S2G	400V	280V	400V
S2J	S2J	600V	420V	600V
S2K	S2K	800V	560V	800V
S2M	S2M	1000V	700V	1000V

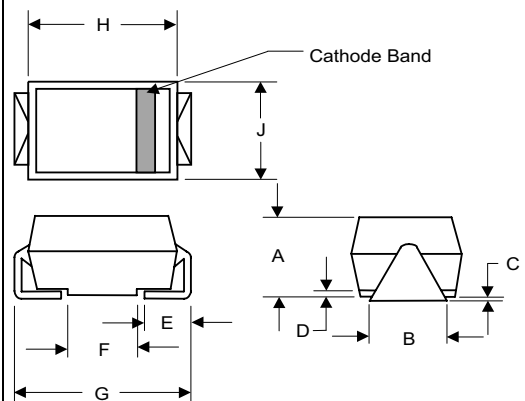
**Electrical Characteristics @ 25°C Unless Otherwise Specified**

Average Forward current	$I_{F(AV)}$	2.0A	$T_J = 75^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	50A	8.3ms, half sine, $T_J = 150^\circ\text{C}$
Maximum Instantaneous Forward Voltage	$V_F$	1.15V	$I_{FM} = 2.0\text{A};$ $T_J = 25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	10 $\mu\text{A}$ 50 $\mu\text{A}$	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$
Maximum Reverse Recovery Time	$T_{rr}$	2.0 $\mu\text{s}$	$I_F=0.5\text{A}, I_R=1.0\text{A},$ $I_{rr}=0.25\text{A}$
Typical Junction Capacitance	$C_J$	30pF	Measured at 1.0MHz, $V_R=4.0\text{V}$

\*Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 2%

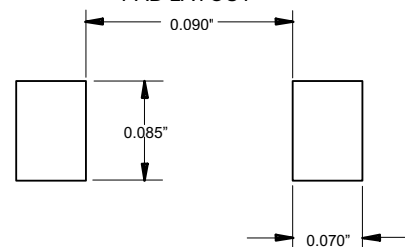
Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7.

**DO-214AA  
(HSMB) (Round Lead)**



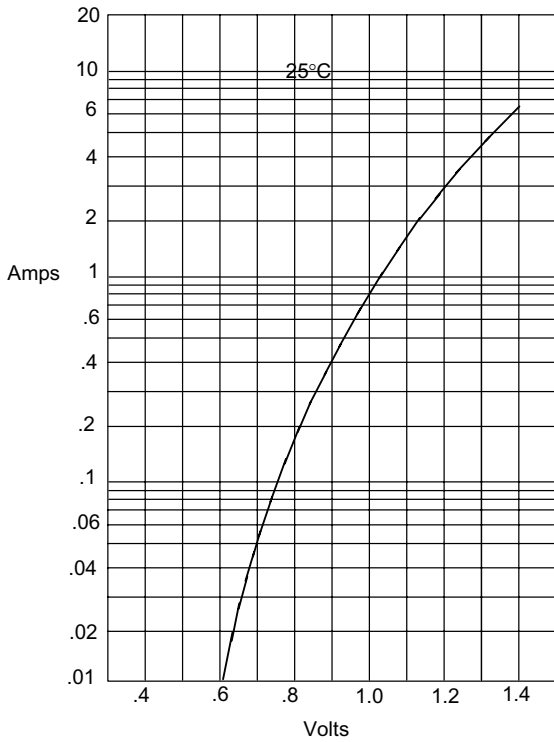
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.078	.116	1.98	2.95	
B	.075	.089	1.90	2.25	
C	.002	.008	.05	.20	
D	---	.02	---	.51	
E	.035	.055	.90	1.40	
F	.065	.091	1.65	2.32	
G	.205	.224	5.21	5.69	
H	.160	.180	4.06	4.57	
J	.130	.155	3.30	3.94	

**SUGGESTED SOLDER  
PAD LAYOUT**



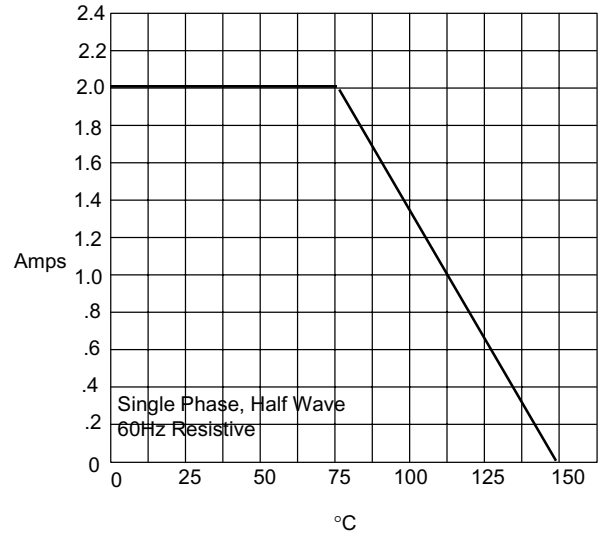
# S2A thru S2M

Figure 1  
Typical Forward Characteristics



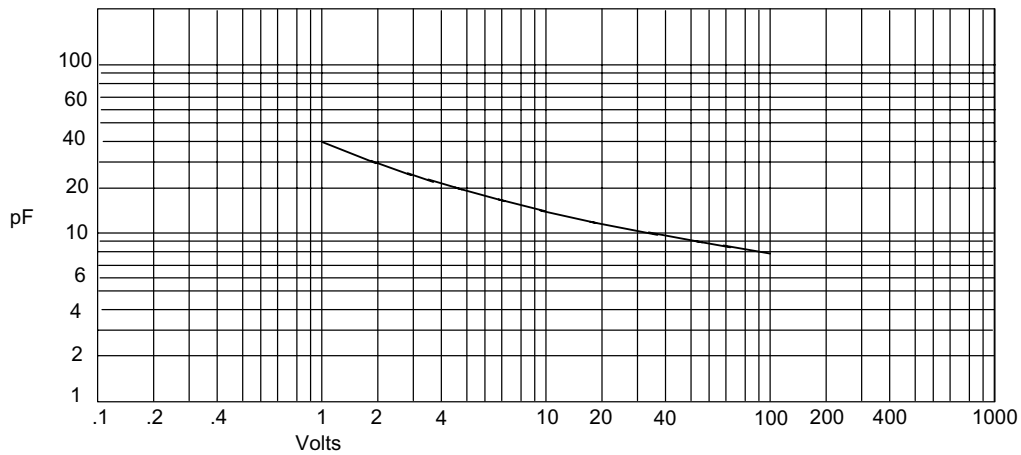
Instantaneous Forward Current - Amperes *versus*  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



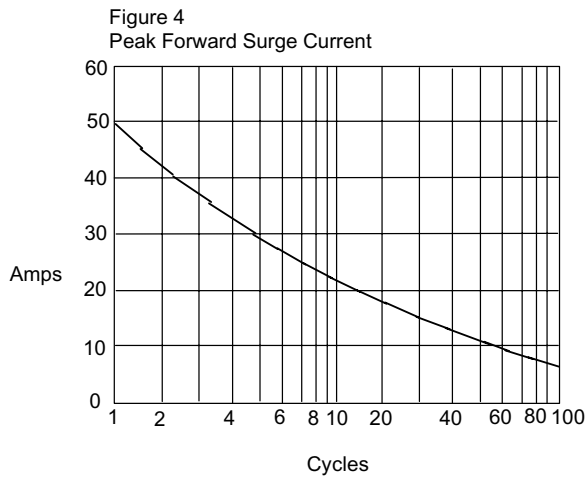
Average Forward Rectified Current - Amperes *versus*  
Ambient Temperature - °C

Figure 3  
Junction Capacitance

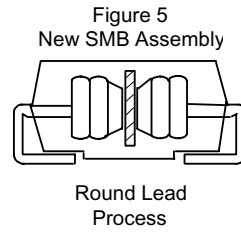


Junction Capacitance - pF *versus*  
Reverse Junction Potential (Applied V + 0.7 Volts) - Volts

# S2A thru S2M



Peak Forward Surge Current - Amperes *versus*  
Number Of Cycles At 60Hz - Cycles





Micro Commercial Components

Ordering Information :

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

**\*\*\*IMPORTANT NOTICE\*\*\***

**Micro Commercial Components Corp.** reserves the right to make changes without further notice to any product herein to make corrections, modifications , enhancements , improvements , or other changes . **Micro Commercial Components Corp .** does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights ,nor the rights of others . The user of products in such applications shall assume all risks of such use and will agree to hold **Micro Commercial Components Corp .** and all the companies whose products are represented on our website, harmless against all damages.

**\*\*\*LIFE SUPPORT\*\*\***

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

**\*\*\*CUSTOMER AWARENESS\*\*\***

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.