Micro Commercial Components

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

S3AB THRU S3MB

3.0 Amp Glass Passivated Rectifier 50 to 1000 Volts

Features

- Halogen free available upon request by adding suffix "-HF"
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Low forward voltage drop and high current capability
- Glass passivated die construction
- Surge overload rating to 100A peak
- Ideally suited for automatic assembly
- Lead Free Finish/Rohs Compliant (Note1) ("P"Suffix designates Compliant. See ordering information)

Maximum Ratings

- Terminals: Solder Plated Terminal – Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Operating Junction Temperature:-55°C to +150°C
- Storage Temperature: -55°C to +150°C

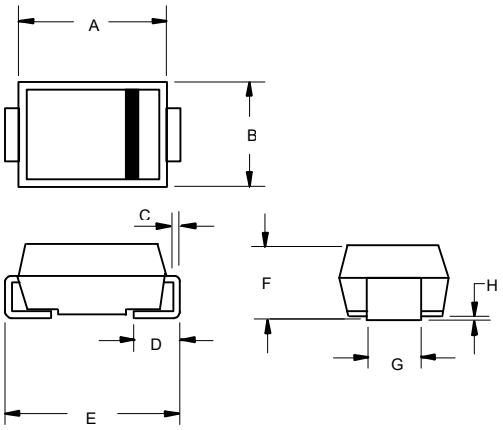
MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
S3AB	S3AB	50V	35V	50V
S3BB	S3BB	100V	70V	100V
S3DB	S3DB	200V	140V	200V
S3GB	S3GB	400V	280V	400V
S3JB	S3JB	600V	420V	600V
S3KB	S3KB	800V	560V	800V
S3MB	S3MB	1000V	700V	1000V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	I_O	3.0A	T_T = 75°C
Non-Repetitive Peak Forward Surge Current	I_{FSM}	100A	8.3ms, half sine
Repetitive Peak Forward Surge Current	I_{FRSM}	150A	300us surge duration 900 ms between surges
Maximum Instantaneous Forward Voltage	V_F	1.15V	I_{FM} = 3.0A; T_J = 25°C
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	10μA 250μA	T_J = 25°C T_J = 125°C
Typical Junction Capacitance	C_J	40pF	Measured at 1.0MHz, V_R=4.0V
Typical Thermal Resistance	R_{thJL}	10°C/W	

Note1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7a

DO-214AA (SMB) (LEAD FRAME)



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	.160	.185	4.06	4.70	
B	.130	.155	3.30	3.94	
C	.006	.012	0.15	0.31	
D	.030	.060	0.76	1.52	
E	.200	.220	5.08	5.59	
F	.079	.103	2.01	2.62	
G	.075	.087	1.91	2.21	
H	.002	.008	0.05	0.203	

SUGGESTED SOLDER PAD LAYOUT

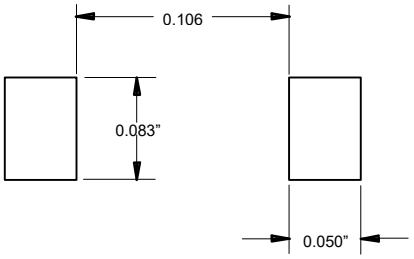


Fig. 1 Forward Current Derating Curve

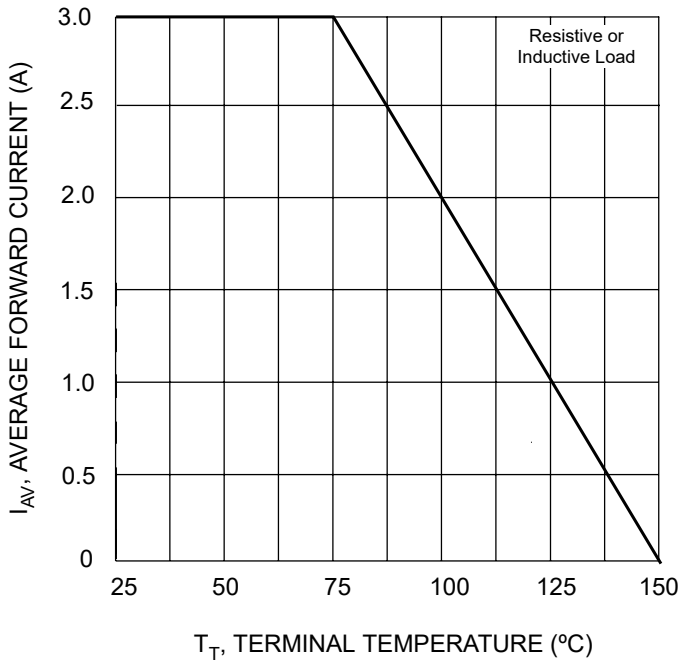


Fig. 2 Typical Forward Characteristics

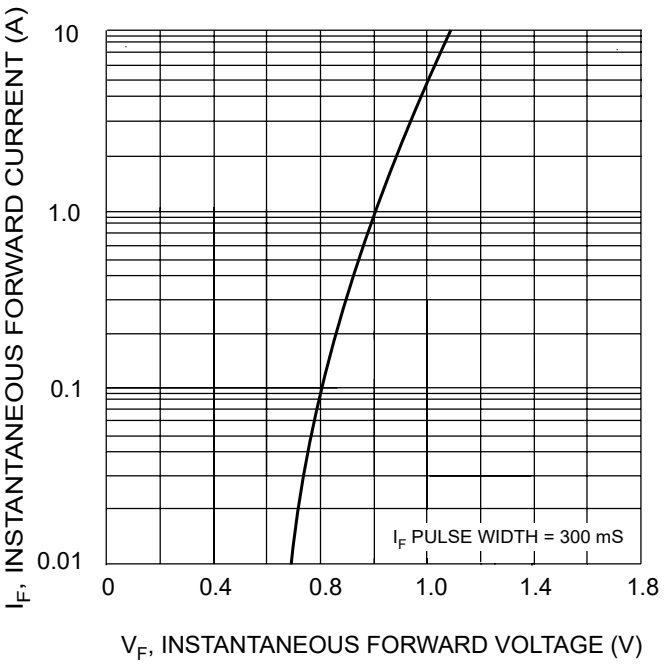


Fig. 3 Forward Surge Current Derating Curve

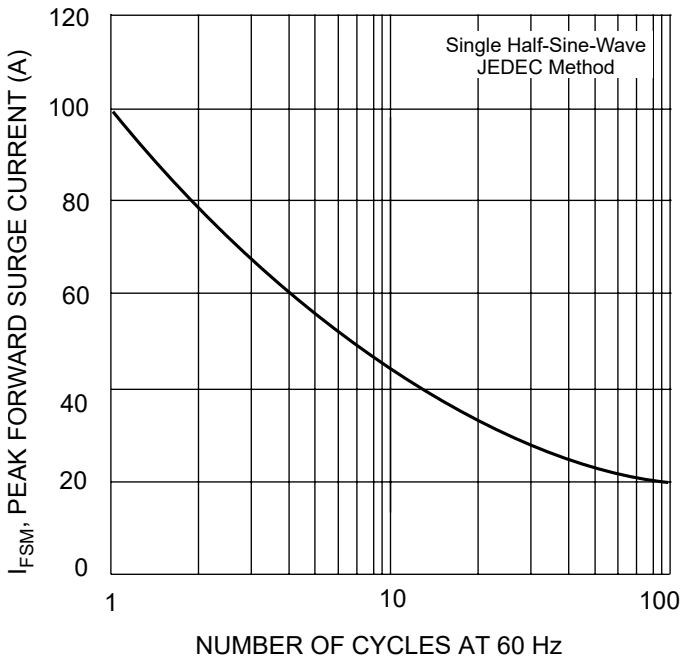


Fig. 4 Typical Reverse Characteristics

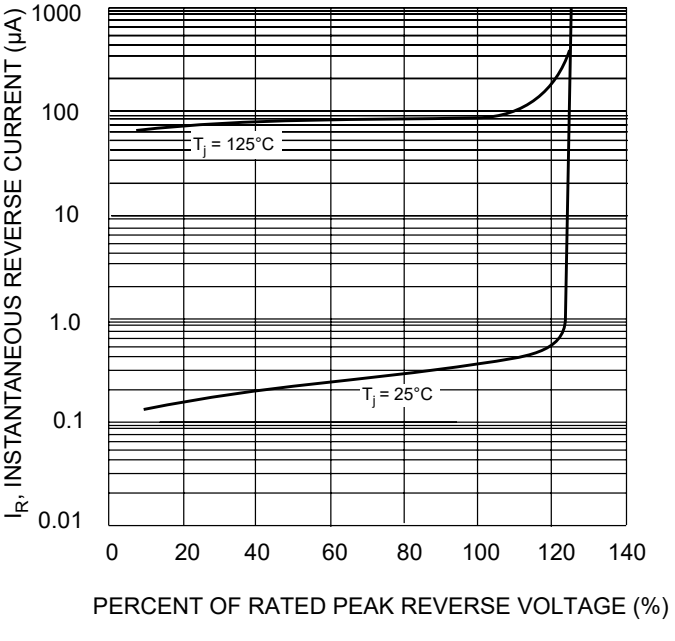
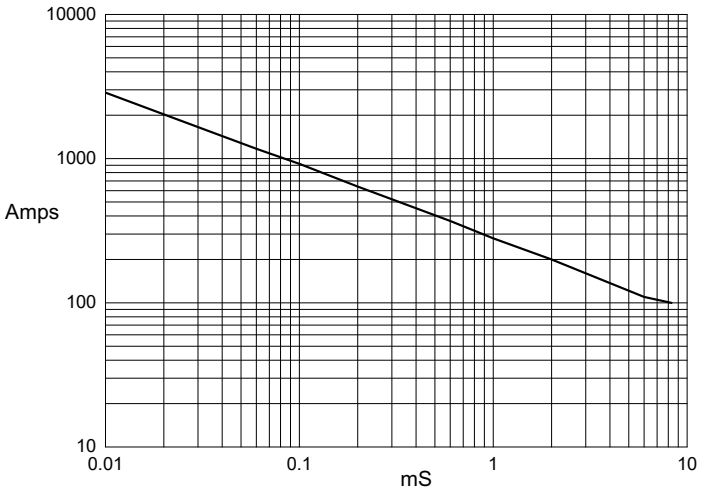


Fig 5.Peak Forward Surge Current



Peak Forward Surge Current - A
Pulse Duration - Milliseconds (mS)

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Ordering Information :

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

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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