3 Amp General Purpose Rectifier 50 to 1000 Volts

Features

- Halogen Free. "Green" Device (Note 1)
- Glass Passivated Chip Junction
- High Forward Surge Capability
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant (Note 2)("P" Suffix Designates RoHS Compliant. See Ordering Information)

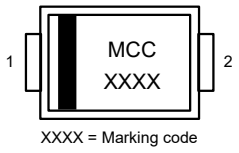
Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value							Unit
		S3AB	S3BB	S3DB	S3GB	S3JB	S3KB	S3MB	
Peak Repetitive Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Working Peak Reverse Voltage	V_{RWM}								
DC Blocking Voltage	V_R								
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Average Rectified Forward Current @ T_L=80°C	$I_{F(AV)}$	3							A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	I_{FSM}	100							A
Non-Repetitive Peak Surge Current @ 1ms Square Wave		200							
Current Squared Time @1ms≤t≤8.3ms	I^2t	41.5							A^2s

Marking code

Part Number	Marking code
S3AB	S3AB
S3BB	S3BB
S3DB	S3DB
S3GB	S3GB
S3JB	S3JB
S3KB	S3KB
S3MB	S3MB

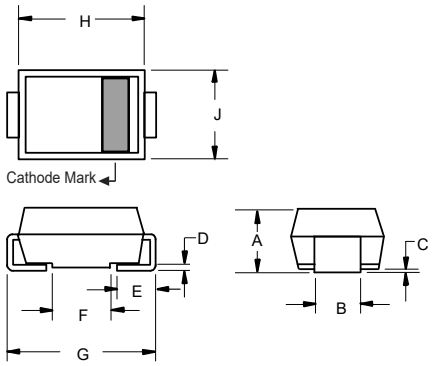
Internal Structure

Pin	Description	Simplified outline	Graphic symbol
1	cathode		
2	anode		

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

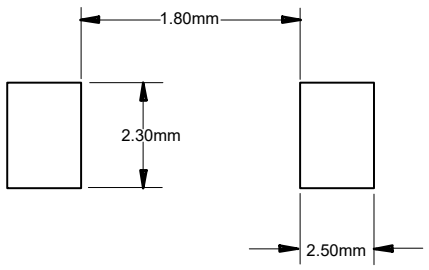
2. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.

SMB (DO-214AA)



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.079	0.103	2.00	2.62	
B	0.075	0.087	1.91	2.21	
C	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	
H	0.160	0.191	4.06	4.85	
J	0.130	0.155	3.30	3.94	

Solder Pad Layout



Thermal characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
T_J	Operating Junction Temperature Range		-55		150	ºC
T_{stg}	Storage Temperature Range		-55		150	ºC
$Rth_{(J-L)}$	Thermal Resistance from Junction to Lead	Note 1		20		ºC/W
$Rth_{(J-A)}$	Thermal Resistance from Junction to Ambient	Note 1		70		ºC/W

Note:
1.Mounted on P.C.B. with 8mm*8mm copper pad areas.

Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V_F	I_F=3A;T_J=25°C			1.10	V
Reverse Current	I_R	at Rated V_R;T_J=25°C at Rated V_R;T_J=125°C			5 100	uA
Junction Capacitance	C_J	V_R=4V;f=1MHz;T_J=25°C		25		pF

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

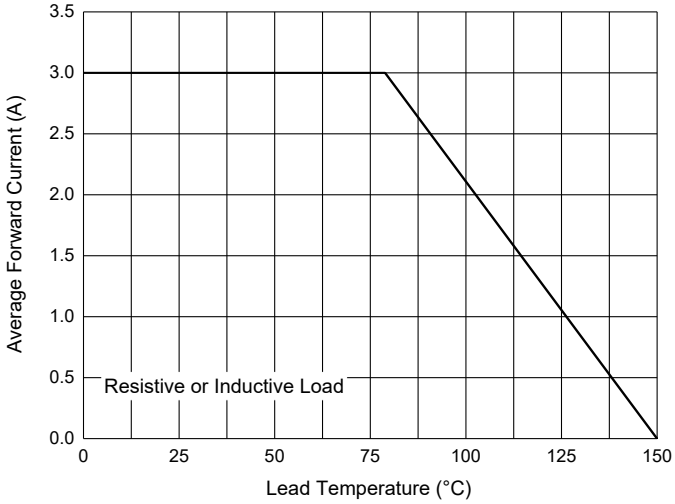


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

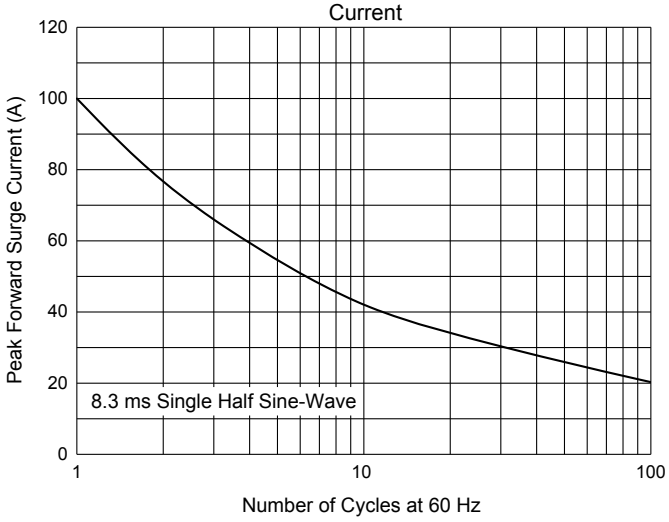


Fig. 3 - Typical Forward Characteristics

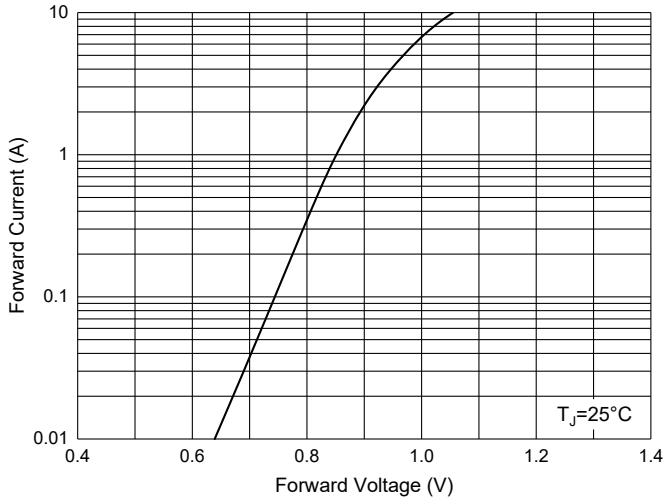


Fig. 4 - Typical Reverse Leakage Characteristics

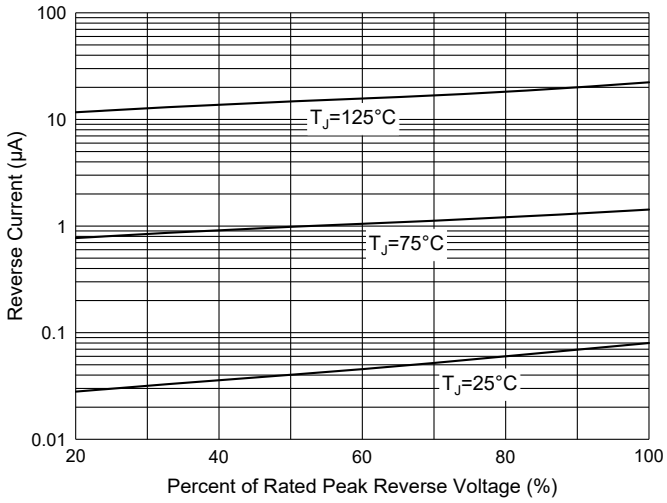
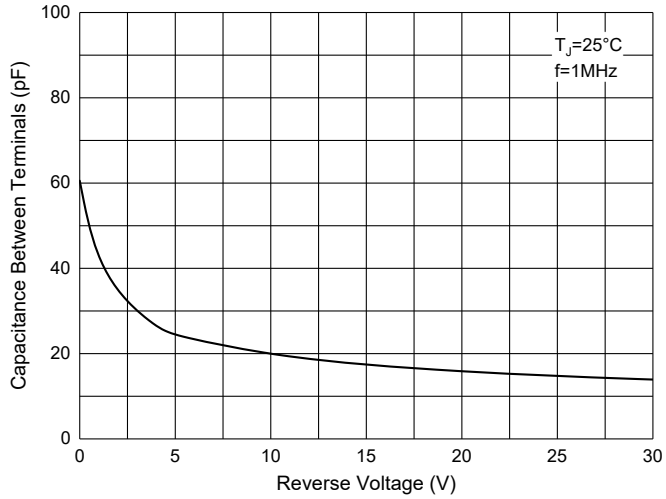


Fig. 5 - Typical Capacitance Characteristics



Ordering Information

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

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