

Silicon Rectifier AEC-Q101

3.0A, 50~1000V DO-214AA SMB

S3xB-A series

MERITEK

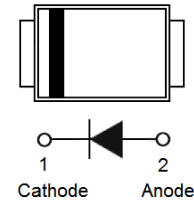
FEATURE

- Glass Passivated Die Construciton
- Maximum Average Forward Rectified Current : 3A
- Low Forward Voltage Drop and High Current Capability
- Low Profile Package
- Ideally Suited for Automatic Assembly
- AEC-Q101 Qualified



MECHANICAL DATA

- Case: DO-214AA (SMB), Molded Plastic
- Terminals: Solderable per MIL-STD, Method 2026
- Flammabilit Classification 94V-0
- Polarity: Color Band Denotes Cathode End



MAXIMUM RATING

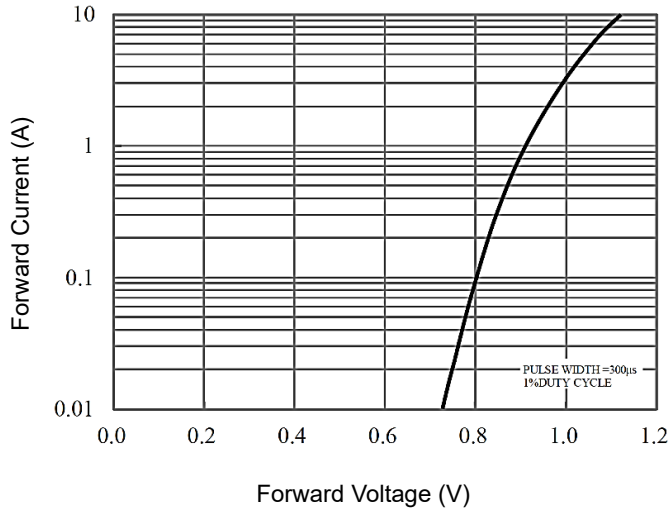
Parameter	Symbol	S3A B-A	S3B B-A	S3D B-A	S3G B-A	S3J B-A	S3K B-A	S3M B-A	Units	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V	
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V	
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000		
Maximum Average Forward Rectified Current at $T_L=75^{\circ}C$	$I_{F(AV)}$	3.0								A
Peak Forward Surge Current, 8.3ms Single Half-Sine-Wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	100								A
Maximum Forward Voltage at 3A, $T_J=25^{\circ}C$	V_F	1.1								V
Maximum Reverse Current	$T_J=25^{\circ}C$	1.7								μA
	$T_J=125^{\circ}C$	540								
Typical Junction Capacitance	C_J	40								pF
Typical Thermal Resistance	$R_{\theta JL}$	25								$^{\circ}C/W$
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55~150								$^{\circ}C$

Note:

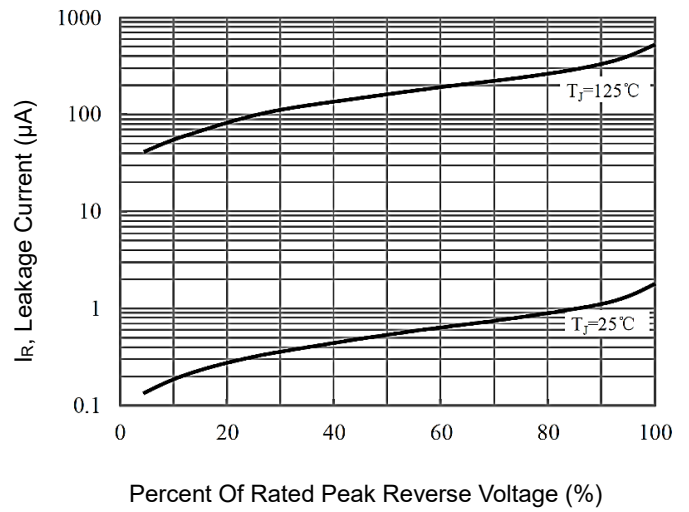
1. $T_A = 25^{\circ}C$ unless otherwise specified.
2. For capacitive load, derate current by 20%.
3. Single phase, half wave, 60Hz, resistive or inductive load
4. C_J measured at $V_R=4.0V_{DC}$, $f=1MHz$.
5. Device mounted on PCB with 0.28x0.28" (7.0mmx7.0mm) copper pad areas

CHARACTERISTIC CURVES

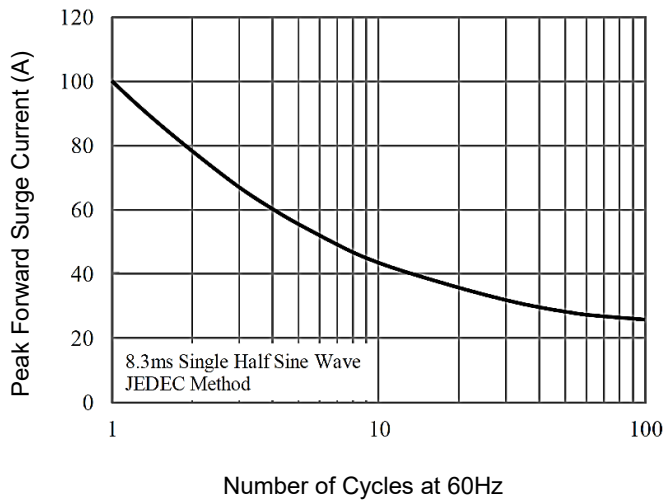
Typical Forward Characteristics



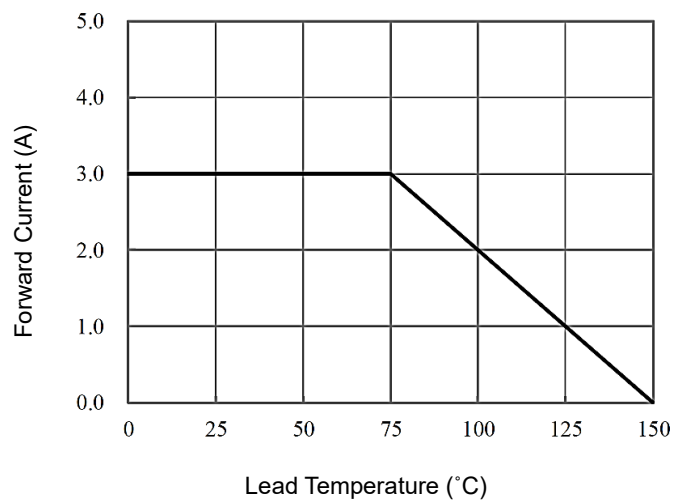
Typical Reverse Characteristics



Maximum Non-Repetitive Forward Surge Current



Forward Current Derating Curve



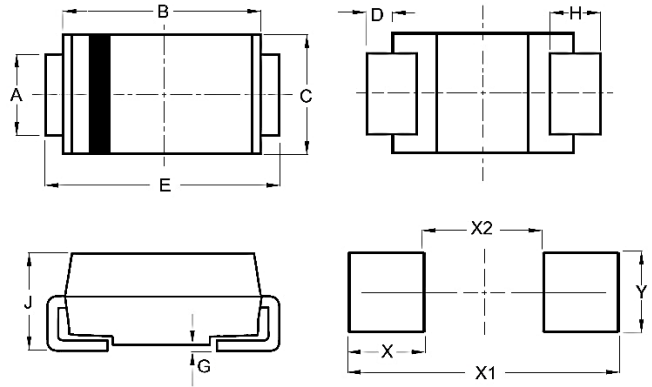
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DIMENSIONS

Item	DO-214AA (SMB)	
	Min. (mm)	Max. (mm)
A	1.910	2.200
B	4.020	4.900
C	3.260	3.940
D	0.150	0.305
E	5.080	5.590
G	0.000	0.203
H	0.750	1.520
J	2.110	2.440
X	2.070	
X1	5.800	
X2	1.660	
Y	2.060	



*Specifications subject to change without notice.