

Silicon Rectifier

3.0A DO-214AB SMC

S3x series

MERITEK

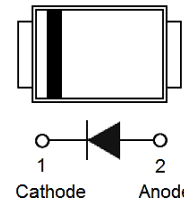
FEATURE

- Maximum Average Forward Rectified Current : 3A
- Glass Passivated Die Constructiton
- Low forward voltage drop
- Low Profile Package
- For surface mounted applications



MECHANICAL DATA

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



MAXIMUM RATING

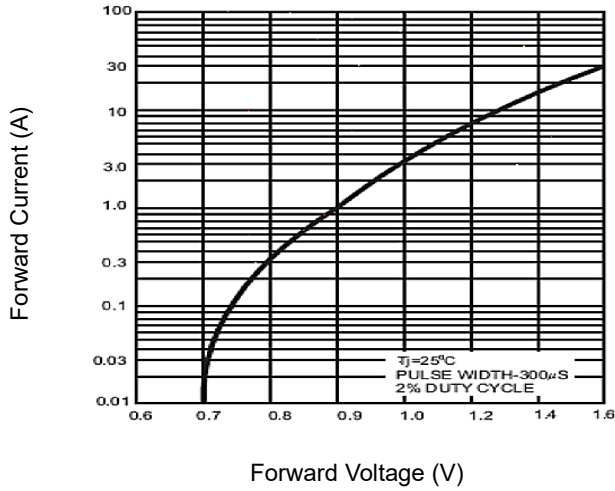
Parameter	Symbol	S3A	S3B	S3D	S3G	S3J	S3K	S3M	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at $T_L=105^{\circ}C$	$I_{F(AV)}$	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 3.0A	V_F	1.10							V
Maximum Reverse Current	$T_A=25^{\circ}C$	10.0							mA
	$T_A=125^{\circ}C$	250.0							
Typical Junction Capacitance	C_J	60							pF
Maximum Reverse Recovery	T_{RR}	2.5							μs
Typical Thermal Resistance	Junction to Ambient	47.0							$^{\circ}C/W$
	Junction to Lead	13.0							
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55~150							$^{\circ}C$

Note:

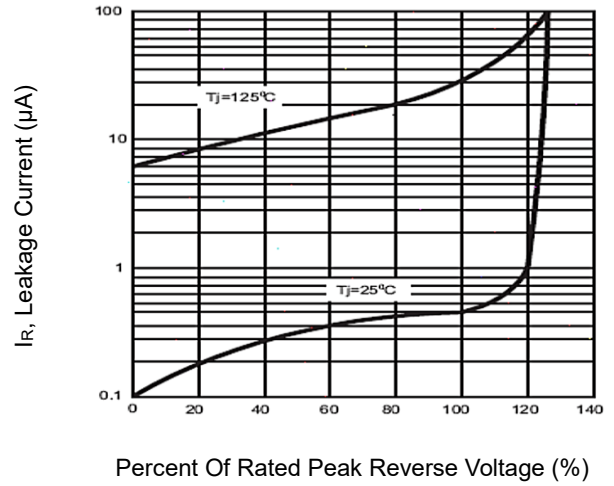
1. $T_A = 25^{\circ}C$ unless otherwise specified.
2. For capacitive load, derate current by 20%.
3. Typical junction capacitor, C_J at $V_R=4.0V_{DC}$, $f=1MHz$.
4. Reverse Recovery Test Conditions : $I_F=5A$, $I_R=1A$, $I_{RR}=25A$
5. Single phase, half wave, 60HZ, resistive or inductive load.
6. Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.3 x 0.3" (8.0 x 8.0mm) copper pad areas

CHARACTERISTIC CURVES

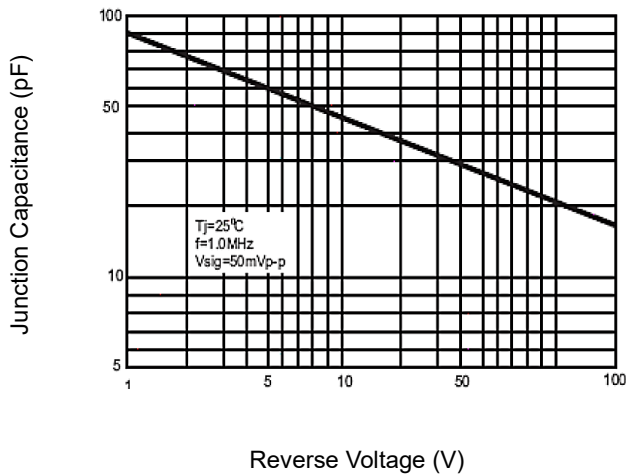
Typical Forward Characteristics



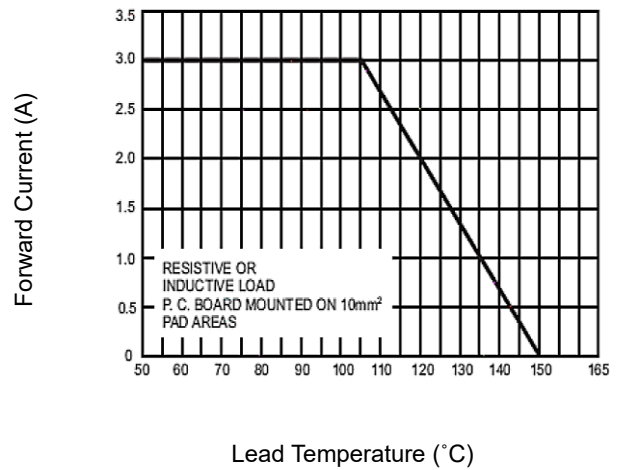
Typical Reverse Characteristics



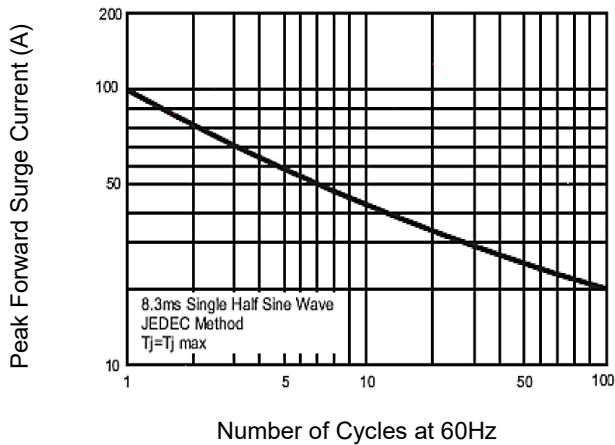
Typical Junction Capacitance



Forward Current Derating Curve



Maximum Non-Repetitive Forward Surge Current



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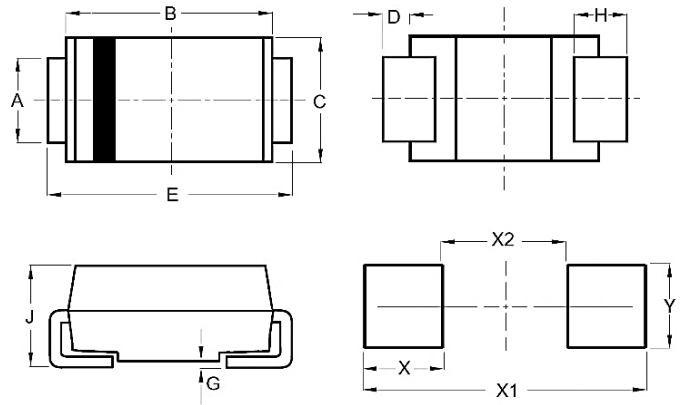
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DIMENSIONS

Item	DO-214AB (SMC)	
	Min. (mm)	Max. (mm)
A	2.750	3.250
B	6.520	7.110
C	5.520	6.220
D	0.152	0.305
E	7.640	8.130
G	0.000	0.203
H	0.760	1.520
J	2.000	2.620
X	2.500	
X1	9.400	
X2	4.400	
Y	3.300	



*Specifications subject to change without notice.