

Silicon Rectifier

3.0A 1000V DO-214AB SMC

S3MC

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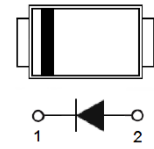
FEATURE

- Glass Passivated Die Construction
- High Forward Surge Current Capability
- Low Reverse Leakage
- Application: Switching Mode Power Supply (SMPS), Adapters, Lightning Application, Converter



MECHANICAL DATA

- Case: DO-214AB (SMC), Molded Plastic
- Terminals: Solderable per MIL-STD, Method 2026
- Flammability Classification UL94V-0
- Polarity: Color Band Denotes Cathode End



MAXIMUM RATING

Parameter	Symbol	Value	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	1000	V
Maximum RMS Voltage	V_{RMS}	700	V
Maximum DC Blocking Voltage	V_{DC}	1000	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	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 at Rated RMS Voltage	$T_A=25^{\circ}\text{C}$	I_R	5.0
	$T_A=100^{\circ}\text{C}$		50.0
Typical Junction Capacitance	$V_R=4\text{V}, f=1\text{MHz}$	C_J	60
Typical Thermal Resistance from Junction to Ambient		$R_{\theta JA}$	50.0
Operating Junction Temperature Range		T_J	-55~150
Storage Temperature Range		T_{STG}	-65~150

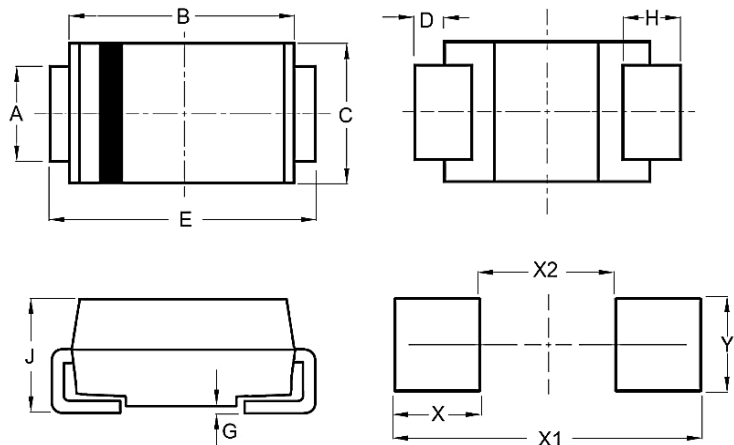
Note:

1. $T_A = 25^{\circ}\text{C}$ unless otherwise specified.

2. P.C.B. mounted with 0.2"x0.2" (5.0x5.0mm) copper pad areas

DIMENSIONS

Item	Min. (mm)	Max. (mm)
A	2.900	3.200
B	6.600	7.110
C	5.520	6.220
D	0.152	0.305
E	7.750	8.130
G	0.000	0.203
H	0.760	1.520
J	2.060	2.620
X	2.500	
X1	9.400	
X2	4.400	
Y	3.300	



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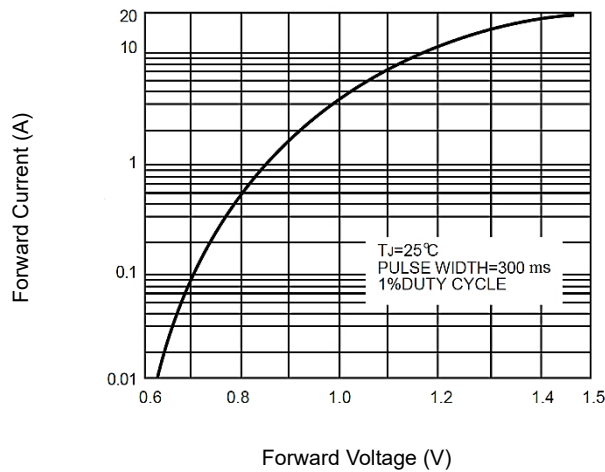
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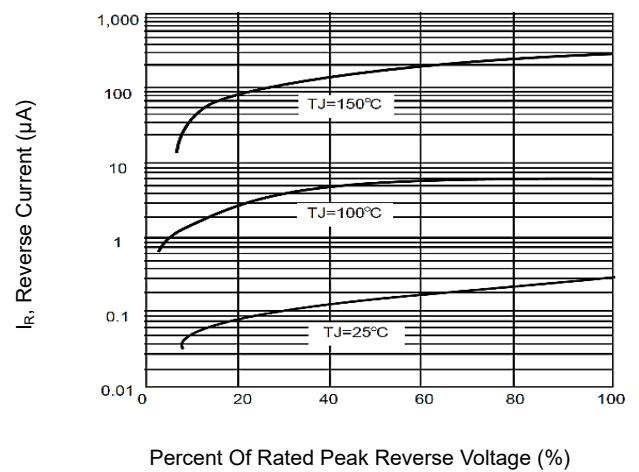
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CHARACTERISTIC CURVES

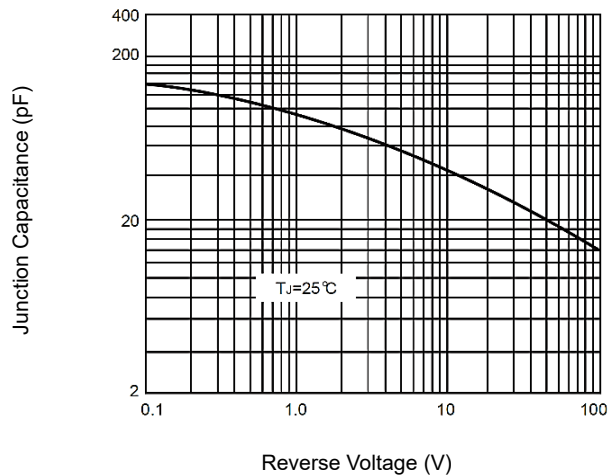
Typical Forward Characteristics



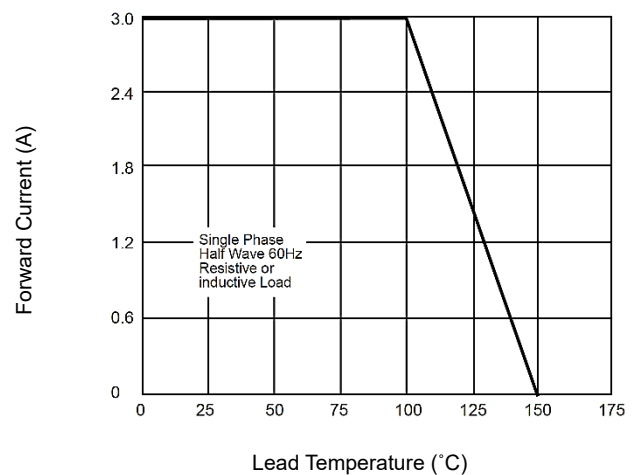
Typical Reverse Characteristics



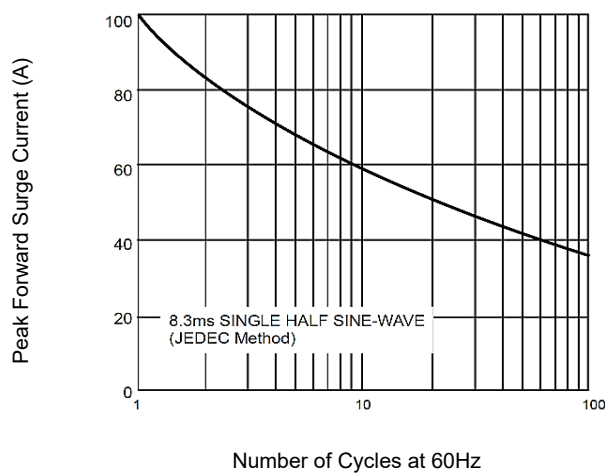
Typical Junction Capacitance



Forward Current Derating Curve



Maximum Non-Repetitive Forward Surge Current



Typical Transient Thermal Impedance

