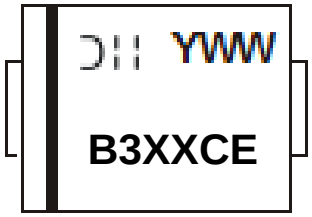
Marking Information (Cont.)

SMC



B3XXCE = Product Type Marking Code, ex: B320CE
= Manufacturers' Code Marking
YWW = Date Code Marking
Y = Last Digit of Year (ex: 7 for 2017)
WW = Week Code (01 to 53)

Maximum Ratings (@T_A = +25°C, unless otherwise specified.)

Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	B320BE B320CE	B330BE B330CE	B340BE B340CE	B345BE B345CE	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_{RM}	20	30	40	45	V
Average Rectified Output Current	I_O	3				A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	80				A

Thermal Characteristics

Characteristic		Symbol	Value	Unit
Typical Thermal Resistance Junction to Ambient (Note 5)	SMB SMC	$R_{\theta JA}$	90 70	°C/W
Typical Thermal Resistance Junction to Case (Note 5)	SMB SMC	$R_{\theta JC}$	50 30	°C/W
Operating and Storage Temperature Range		T_J, T_{STG}	-55 to +150	°C

Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

Characteristic		Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage Drop		V_F	— —	0.46 0.41	0.50 —	V	I_F = 3A, T_A = +25°C I_F = 3A, T_A = +125°C
Leakage Current (Note 6)	B320BE/ B320CE B330BE/ B330CE B340BE/ B340CE B345BE/ B345CE	I_R	— — — — —	— — — — 30	0.10 0.15 0.20 0.30 —	mA	V_R = 20V, T_A = +25°C V_R = 30V, T_A = +25°C V_R = 40V, T_A = +25°C V_R = 45V, T_A = +25°C V_R = 45V, T_A = +125°C
Typical Capacitance		C_T	—	140	—	pF	V_R = 4.0V, f = 1MHz

Notes: 5. Device mounted on FR-4 substate, 0.4"*0.5", 2oz, single-sided, PC boards with 0.2"*0.25" copper pad.
6. Short duration pulse test used to minimize self-heating effect.

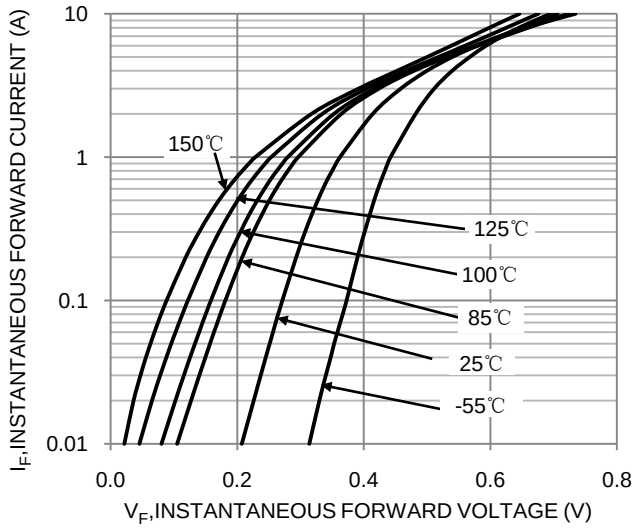


Figure 1. Typical Forward Characteristics

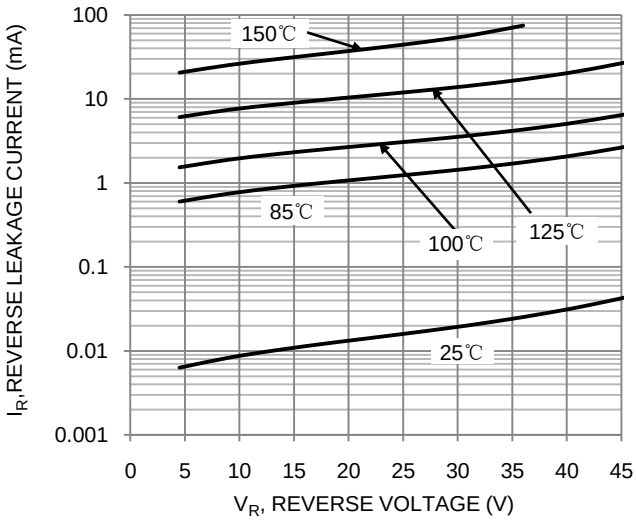


Figure 2. Typical Reverse Characteristics

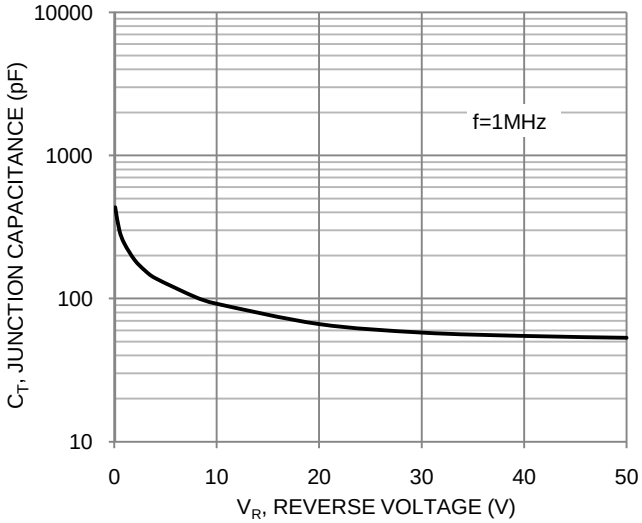


Figure 3. Typical Junction Capacitance

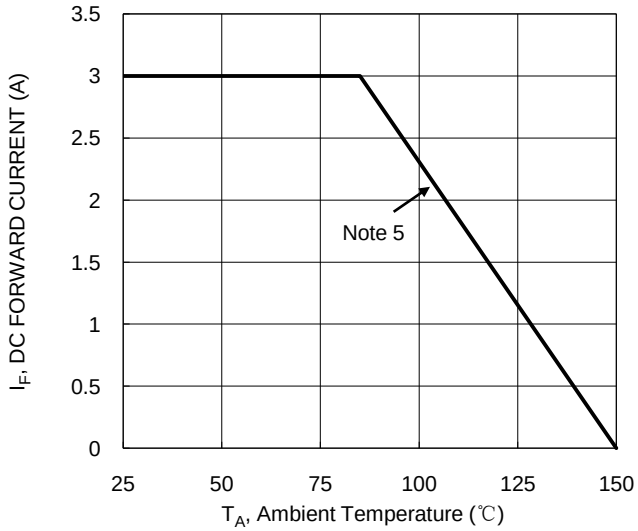
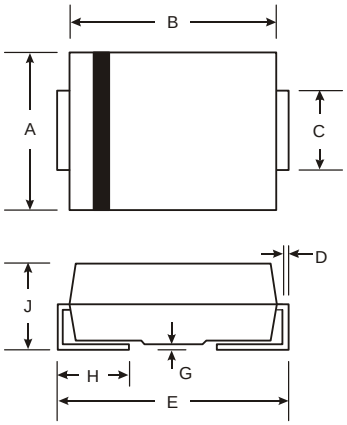


Figure 4. DC Forward Current Derating

Package Outline Dimensions

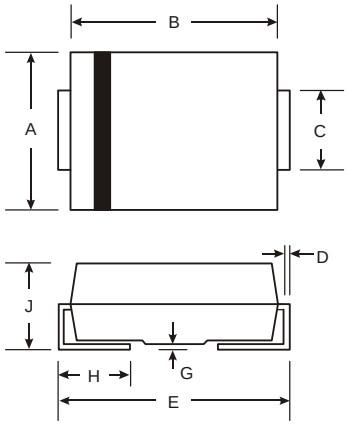
Please see http://www.diodes.com/package-outlines.html for the latest version.

SMB



SMB		
Dim	**Min**	**Max**
A	3.30	3.94
B	4.06	4.57
C	1.96	2.21
D	0.15	0.31
E	5.00	5.59
G	0.05	0.20
H	0.76	1.52
J	2.00	2.50
All Dimensions in mm		

SMC

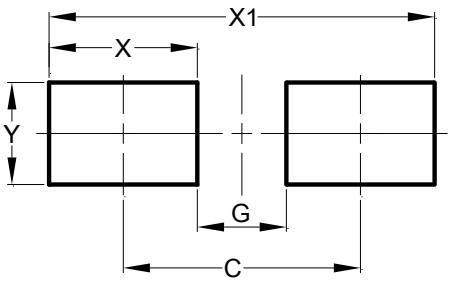


SMC		
Dim	**Min**	**Max**
A	5.59	6.22
B	6.60	7.11
C	2.75	3.18
D	0.15	0.31
E	7.75	8.13
G	0.10	0.20
H	0.76	1.52
J	2.00	2.50
All Dimensions in mm		

Suggested Pad Layout

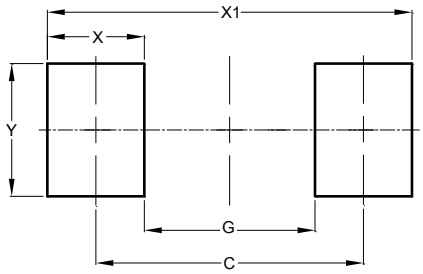
Please see http://www.diodes.com/package-outlines.html for the latest version.

SMB



Dimensions	Value (in mm)
C	4.30
G	1.80
X	2.50
X1	6.80
Y	2.30

SMC



Dimensions	Value (in mm)
C	6.90
G	4.40
X	2.50
X1	9.40
Y	3.30

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