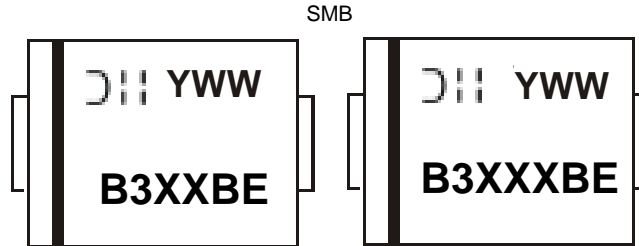


Marking Information



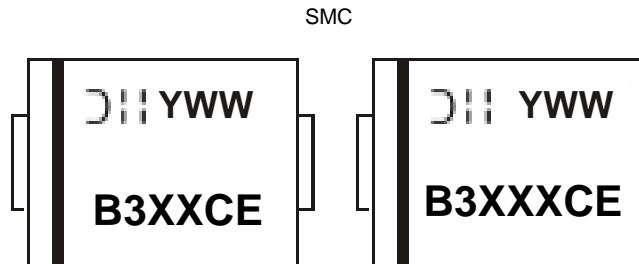
B3XXBE or B3XXXBE = Product Type Marking Code, ex: B370BE

YWW = Manufacturers' Code Marking

YWW = Date Code Marking

Y = Last Digit of Year (ex: 0 for 2020)

WW = Week Code (01 to 53)



B3XXCE or B3XXXCE = Product Type Marking Code, ex: B370CE

YWW = Manufacturers' Code Marking

YWW = Date Code Marking

Y = Last Digit of Year (ex: 0 for 2020)

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	B370BE B370CE	B380BE B380CE	B390BE B390CE	B3100BE B3100CE	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	70	80	90	100	V
Working Peak Reverse Voltage	V _{RWM}					
DC Blocking Voltage	V _{RM}					
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}	100				A

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance Junction to Ambient (Note 6)	R _{θJA}	90	°C/W
Typical Thermal Resistance Junction to Case (Note 6)	R _{θJC}	70	°C/W
		50	°C/W
		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	—	0.74	0.79	V	I _F = 3A, T _A = +25°C
		—	0.60	—		I _F = 3A, T _A = +125°C
B370BE/B370CE	I _R	—	—	0.10	mA	V _R = 70V, T _A = +25°C
B380BE/B380CE		—	—	0.15		V _R = 80V, T _A = +25°C
B390BE/B390CE		—	—	0.20		V _R = 90V, T _A = +25°C
B3100BE/B3100CE		—	—	0.30		V _R = 100V, T _A = +25°C
		—	0.7	—		V _R = 100V, T _A = +125°C
Typical Capacitance	C _T	—	105	—	pF	V _R = 4.0V, f = 1MHz

Notes: 6. Device mounted on FR-4 substrate, 1"×1", 2oz, single-sided, PC boards with 0.56"×0.73" copper pad.
 7. Short duration pulse test used to minimize self-heating effect.

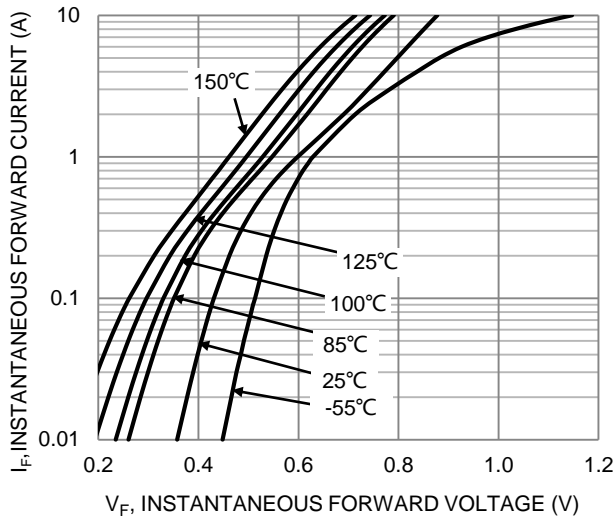


Figure 1. Typical Forward Characteristics

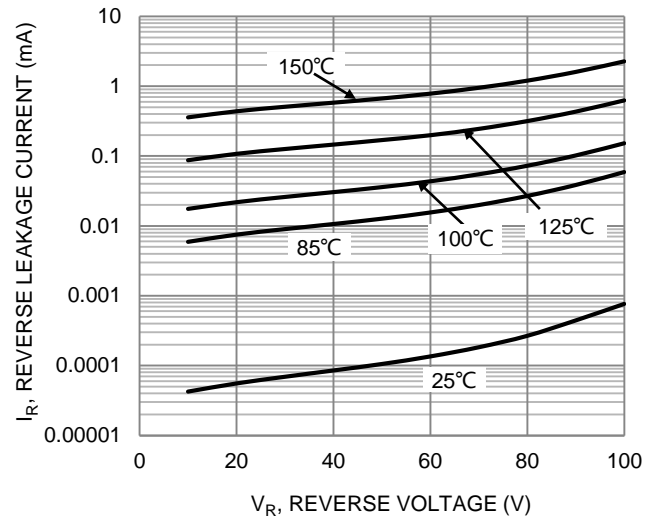


Figure 2. Typical Reverse Characteristics

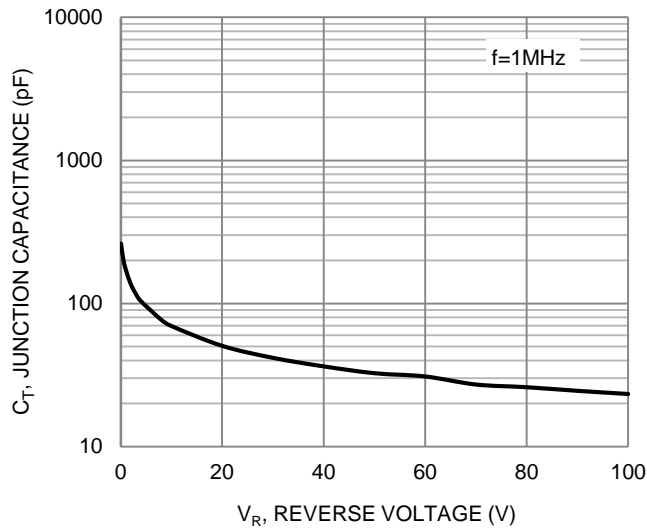


Figure 3. Typical Junction Capacitance

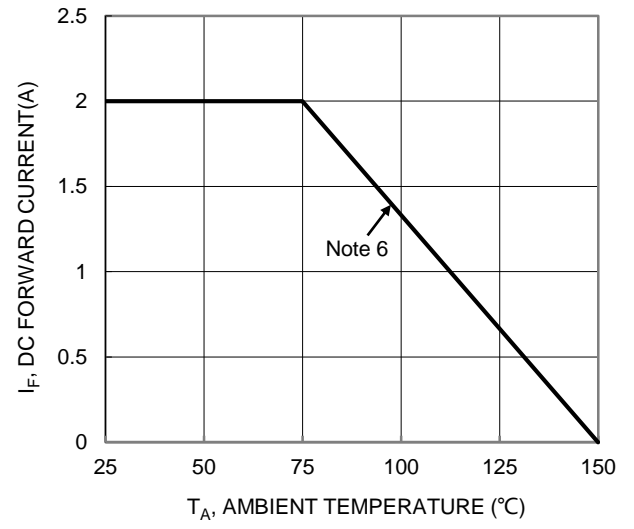
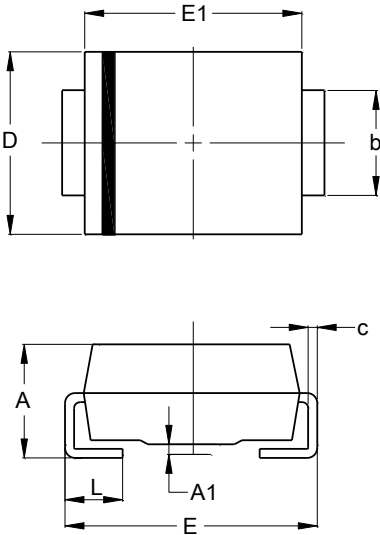


Figure 4. DC Forward Current Derating

Package Outline Dimensions

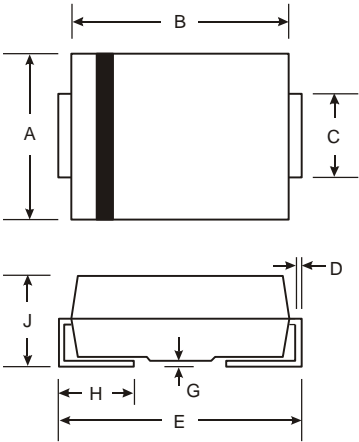
Please see <http://www.diodes.com/package-outlines.html> for the latest version.

SMB



SMB		
Dim	Min	Max
A	2.00	2.50
A1	0.05	0.20
b	1.96	2.21
c	0.15	0.31
D	3.30	3.94
E	5.00	5.59
E1	4.06	4.57
L	0.76	1.52
All Dimensions in mm		

SMC

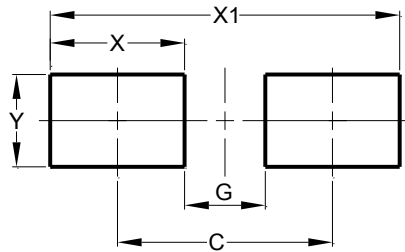


SMC		
Dim	Min	Max
A	5.59	6.22
B	6.60	7.11
C	2.75	3.18
D	0.15	0.31
E	7.75	8.13
G	0.10	0.20
H	0.76	1.52
J	2.00	2.50
All Dimensions in mm		

Suggested Pad Layout

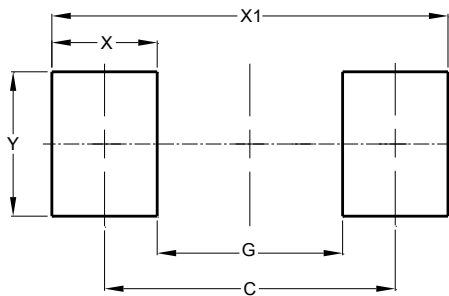
Please see <http://www.diodes.com/package-outlines.html> for the latest version.

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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