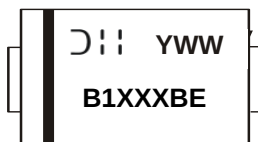
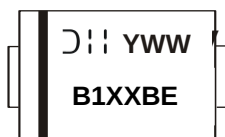


Marking Information (continued)

SMB



B1XXBE or B1XXXBE = Product Type Marking Code, ex: B170BE (SMB Package)

D11 = Manufacturers' Code Marking

YWW = Date Code Marking

Y = Last Digit of Year (ex: 9 for 2019)

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	B170AE B170BE	B180AE B180BE	B190AE B190BE	B1100AE B1100BE	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	70	80	90	100	V
Working Peak Reverse Voltage	V _{RWM}					
DC Blocking Voltage	V _R					
Average Rectified Output Current	I _O	1.0				A
Non-Repetitive Peak Forward Surge Current 8.3ms	I _{FSM}	30				A
Single Half Sine-Wave Superimposed on Rated Load						

Thermal Characteristics

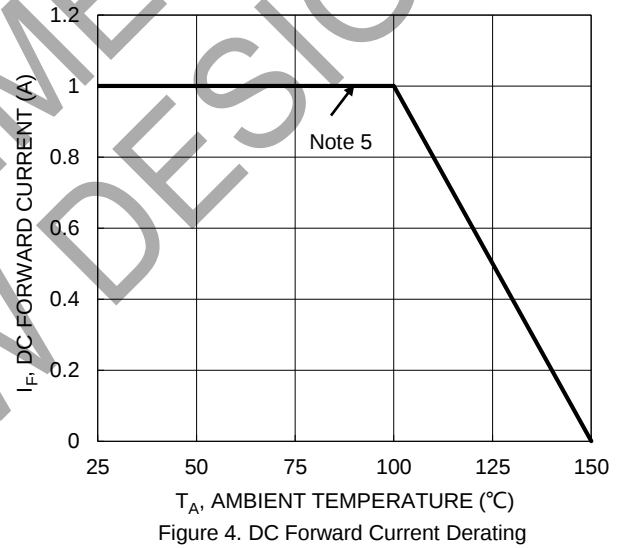
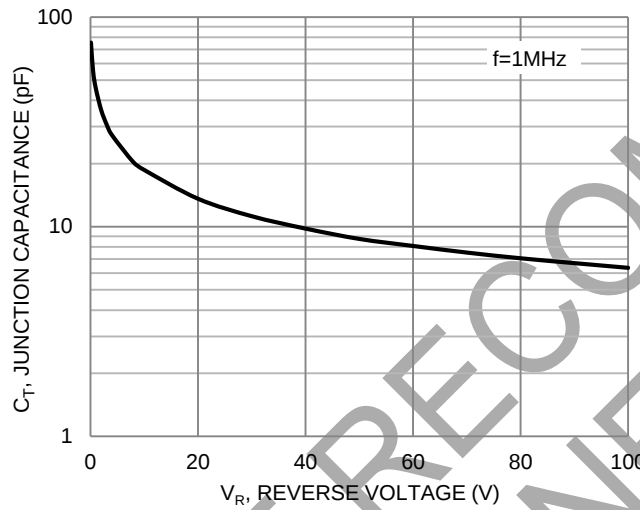
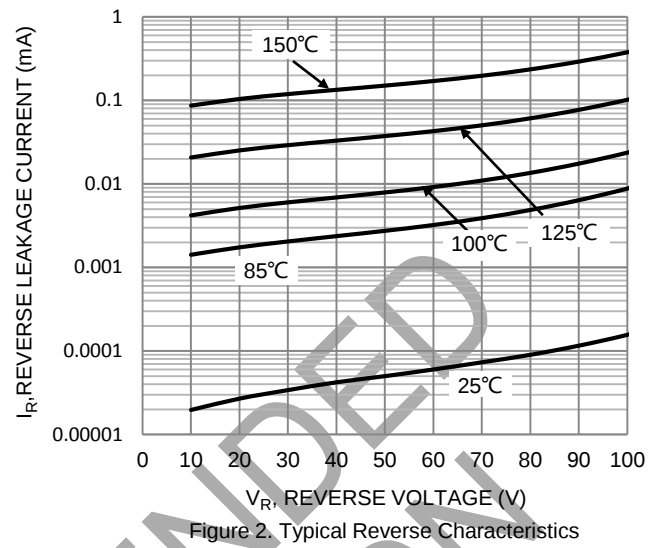
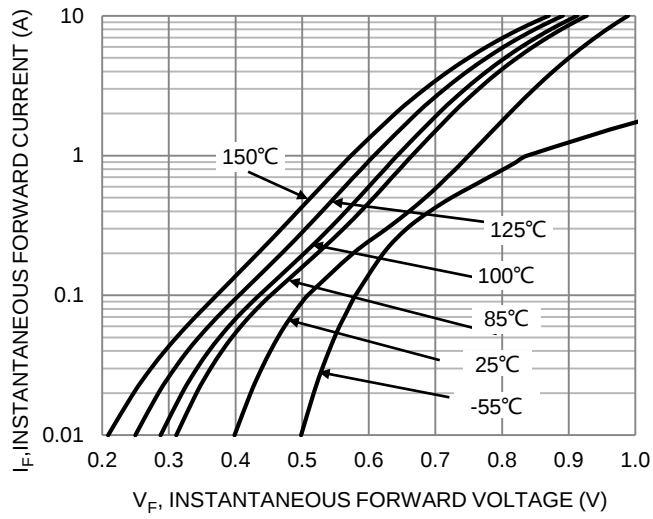
Characteristic	Symbol	Value	Unit
Typical Thermal Resistance, Junction to Ambient (Note 5)	R _{θJA}	110	°C/W
	SMA	75	
	SMB		
Typical Thermal Resistance, Junction to Case (Note 5)	R _{θJC}	55	°C/W
	SMA	40	
	SMB		
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C

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

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage Drop	V _F	—	0.75	0.79	V	I _F = 1.0A, T _A = +25°C
		—	0.61	—		I _F = 1.0A, T _A = +125°C
Leakage Current (Note 6)	I _R	—	—	0.2	mA	@ Rated V _R , T _A = +25°C
		—	—	5.0		@ Rated V _R , T _A = +125°C
Typical Capacitance	C _T	—	27	—	pF	V _R = 4V, f = 1MHz

Notes: 5. Device mounted on FR-4 substrate, 0.4" x 0.5", 2oz, single-sided, PC boards with 0.2" x 0.25" copper pad.

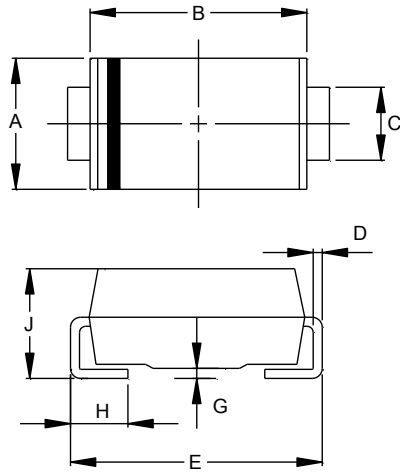
6. Short duration pulse test used to minimize self-heating effect.



Package Outline Dimensions

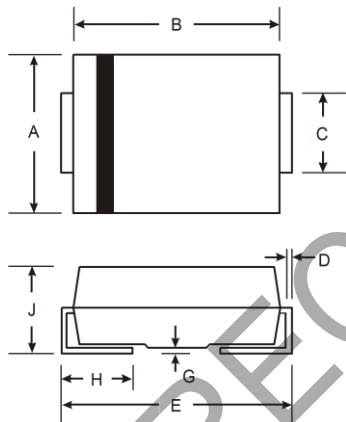
Please see <http://www.diodes.com/package-outlines.html> for the latest version.

SMA



SMA		
Dim	Min	Max
A	2.29	2.92
B	4.00	4.60
C	1.27	1.63
D	0.15	0.31
E	4.80	5.59
G	0.05	0.20
H	0.76	1.52
J	1.96	2.40
All Dimensions in mm		

SMB

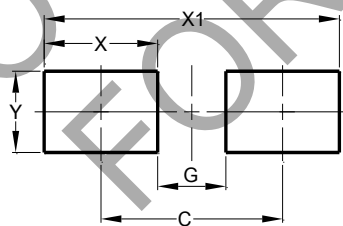


SMB		
Dim	Min	Max
A	3.30	3.94
B	4.06	4.57
C	1.96	2.21
D	0.15	0.31
E	5.00	5.59
G	0.05	0.20
H	0.76	1.52
J	2.00	2.50
All Dimensions in mm		

Suggested Pad Layout

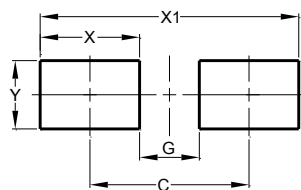
Please see <http://www.diodes.com/package-outlines.html> for the latest version.

SMA



Dimensions	Value (in mm)
C	4.00
G	1.50
X	2.50
X1	6.50
Y	1.70

SMB



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

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