

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	B320AE	B330AE	B340AE	B345AE	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	20	30	40	45	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}	80				A

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance Junction to Ambient (Note 6)	R _{θJA}	60	°C/W
Typical Thermal Resistance Junction to Case (Note 6)	R _{θJC}	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	—	0.45 0.40	0.50 —	V	I _F = 3A, T _J = +25°C I _F = 3A, T _J = +125°C
Leakage Current (Note 7)	I _R	—	—	0.10	mA	V _R = 20V, T _J = +25°C
		—	—	0.15		V _R = 30V, T _J = +25°C
		—	—	0.20		V _R = 40V, T _J = +25°C
		—	—	0.30		V _R = 45V, T _J = +25°C
		—	35	—		V _R = 45V, T _J = +125°C
Typical Capacitance	C _T	—	140	—	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.

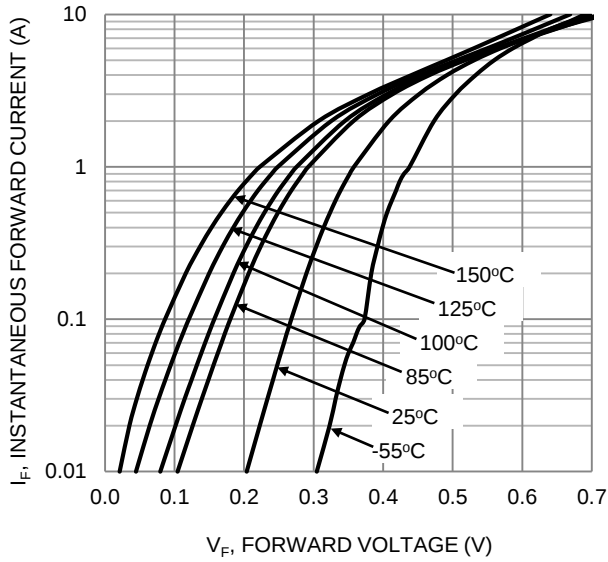


Figure 1. Typical Forward Characteristics

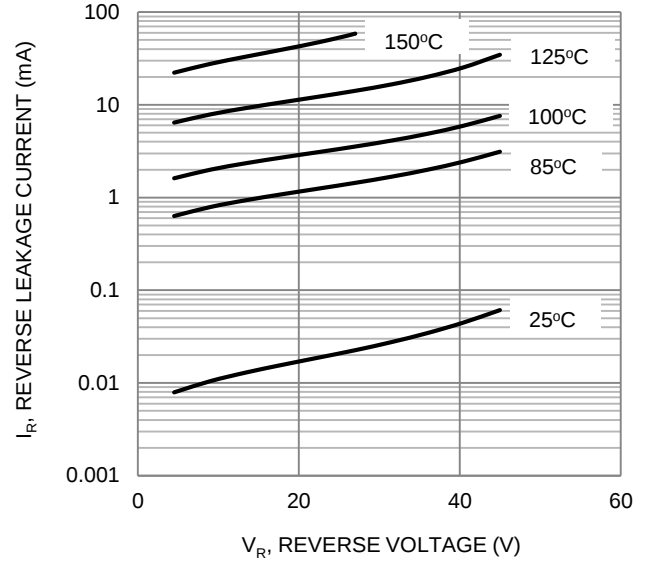


Figure 2. Typical Reverse Characteristics

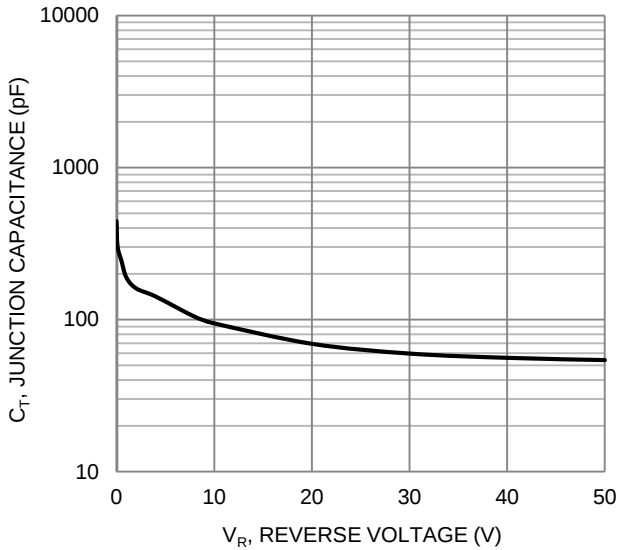


Figure 3. Typical Junction Capacitance

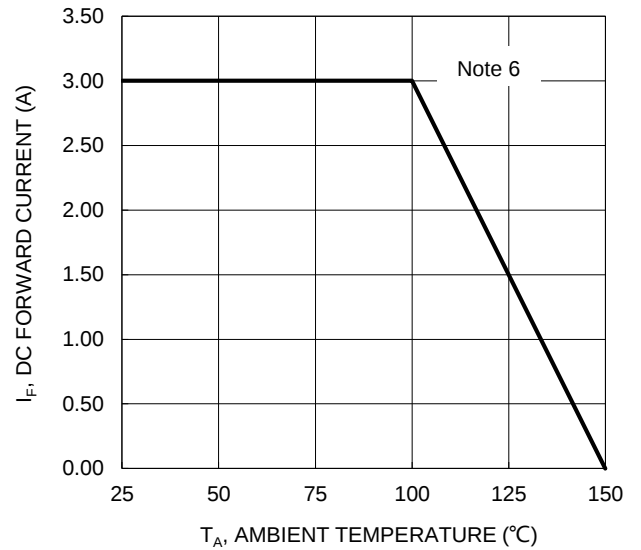
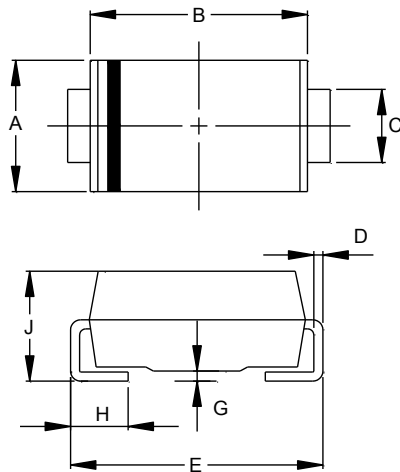


Figure 4. DC Forward Current Derating

Package Outline Dimensions

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

SMA

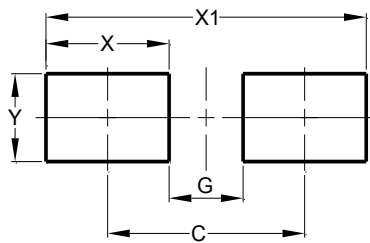


SMA		
Dim	Min	Max
A	2.29	2.92
B	4.00	4.60
C	1.27	1.63
D	0.15	0.31
E	4.80	5.59
G	0.05	0.20
H	0.76	1.52
J	1.96	2.40
All Dimensions in mm		

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

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