

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	B220AQ/Q	B230AQ/Q	B240AQ/Q	B250AQ/Q	B260AQ/Q	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	20	30	40	50	60	V
Working Peak Reverse Voltage	V _{RWM}						
DC Blocking Voltage	V _R						
RMS Reverse Voltage	V _{R(RMS)}	14	21	28	35	42	V
Average Rectified Output Current	I _O	2.0					A
Non-Repetitive Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	50					A

Thermal Characteristics

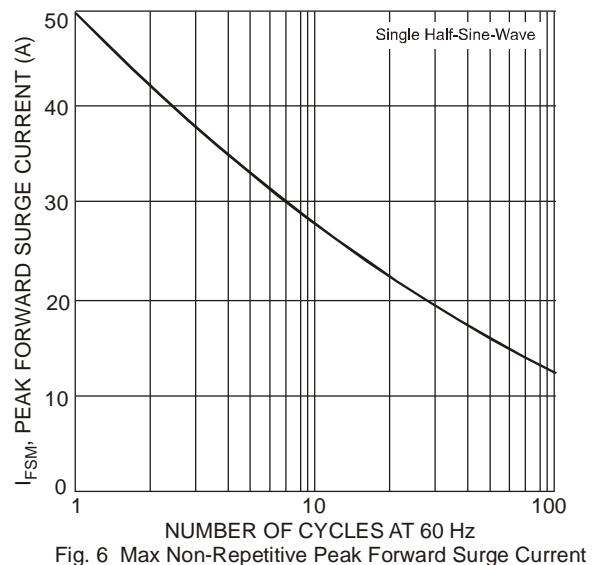
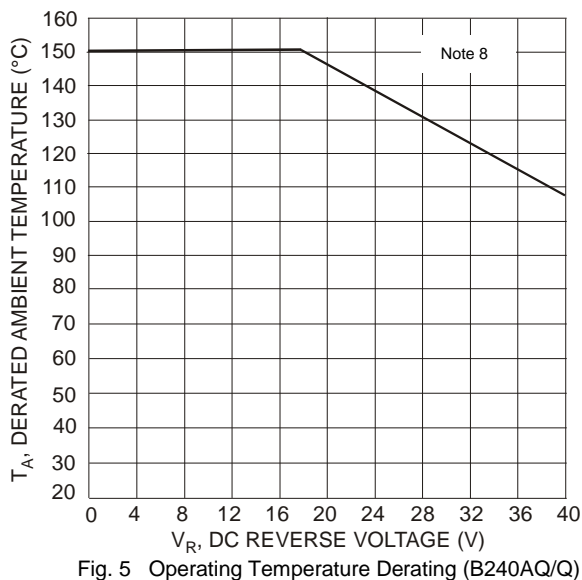
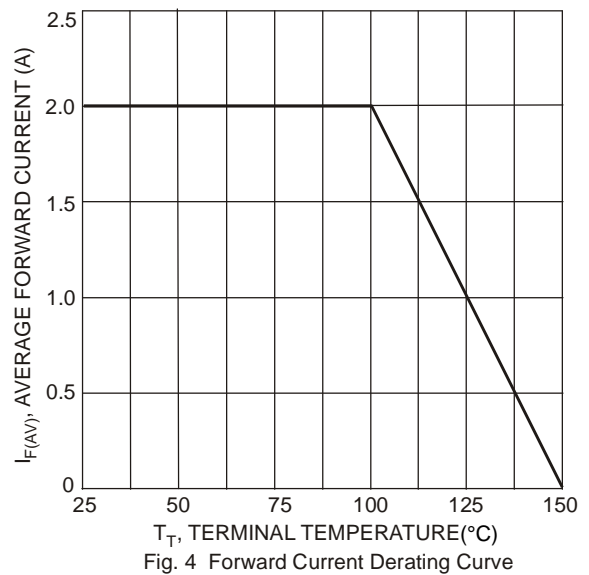
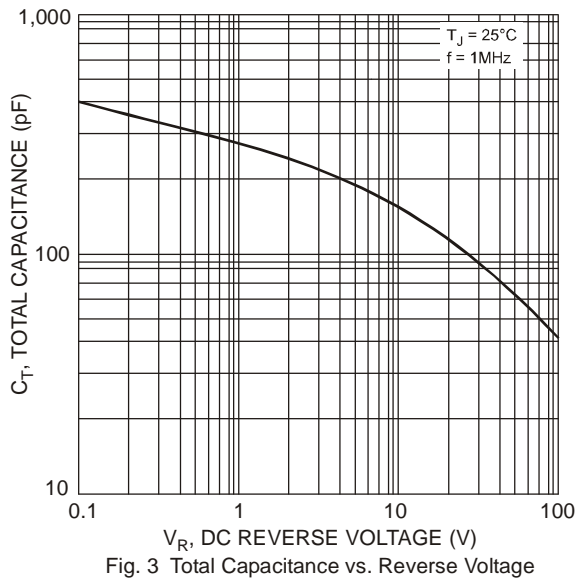
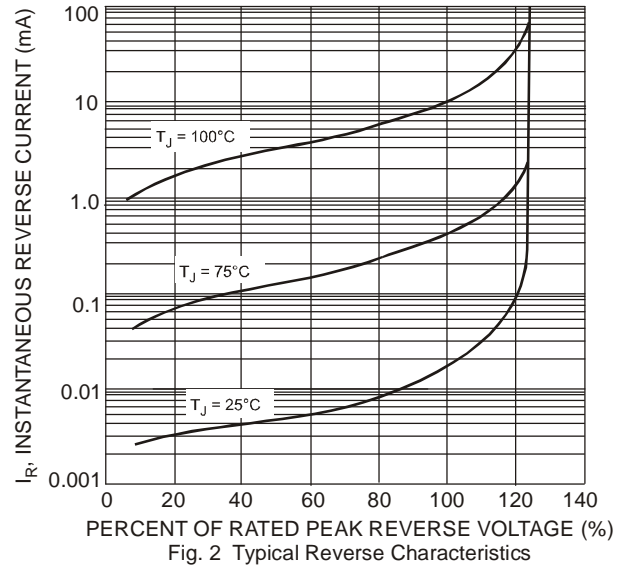
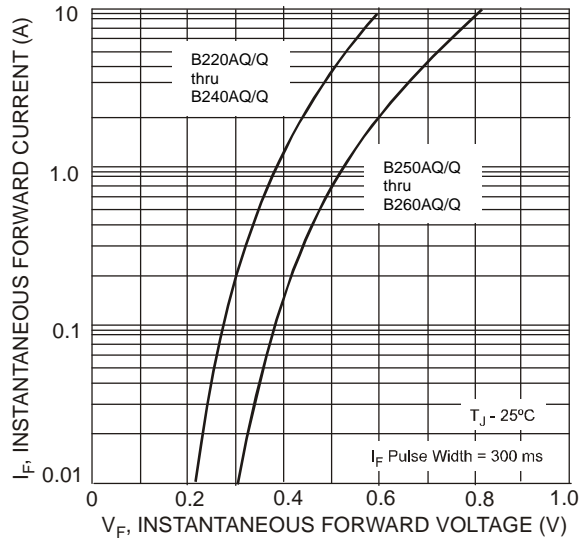
Characteristic	Symbol	Value	Unit
Typical Thermal Resistance, Junction to Lead	R _{θJL}	25	°C/W
	SMA	20	
Typical Thermal Resistance, Junction to Ambient (Note 6)	R _{θJA}	80	°C/W
	SMB		
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150	°C

Note: 6. Device mounted on FR-4 substrate, 0.4"×0.5", 2oz.

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

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage Drop	V _F	—	—	0.50 0.70	V	I _F = 2.0A, T _A = +25°C
						B220AQ/Q, B230AQ/Q, B240AQ/Q B250AQ/Q, B260AQ/Q
Leakage Current (Note 7)	I _R	—	—	0.5 20	mA	@ Rated V _R , T _A = +25°C @ Rated V _R , T _A = +100°C
Total Capacitance	C _T	—	—	200	pF	V _R = 40V, f = 1MHz

Note: 7. Short duration pulse test used to minimize self-heating effect.

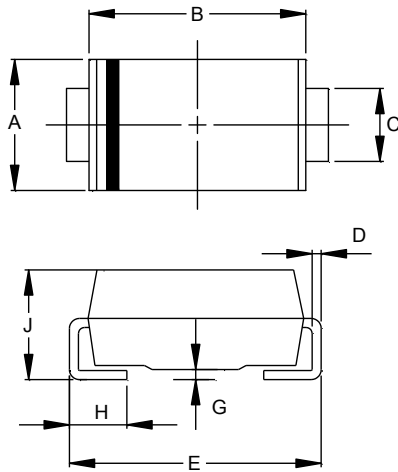


Note: 8. Device mounted on FR-4 PC board with minimum recommended pad layout pattern as per <http://www.diodes.com/package-outlines.html>.

Package Outline Dimensions

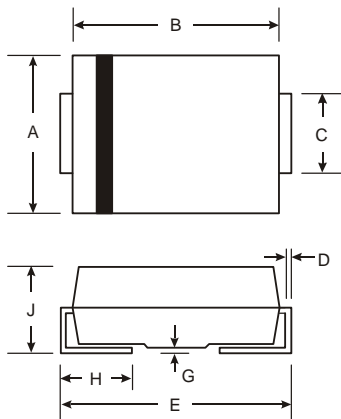
Please see <http://www.diodes.com/package-outlines.html> for the latest version.

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

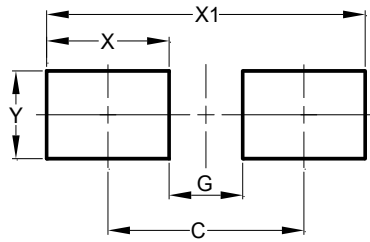


SMB		
Dim	Min	Max
A	3.30	3.94
B	4.06	4.57
C	1.96	2.21
D	0.15	0.31
E	5.00	5.59
G	0.05	0.20
H	0.76	1.52
J	2.00	2.50
All Dimensions in mm		

Suggested Pad Layout

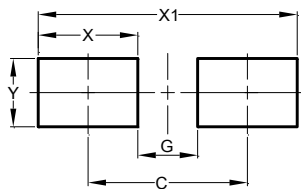
Please see <http://www.diodes.com/package-outlines.html> for the latest version.

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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