

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

Single phase, half wave, 60Hz, resistive or inductive load

For capacitance load, derate current by 20%.							
Characteristic	Symbol	B120/B	B130/B	B140/B	B150/B	B160/B	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	20	30	40	50	60	V
RMS Reverse Voltage	V _{R(RMS)}	14	21	28	35	42	V
Average Rectified Output Current @ $T_T = +130^{\circ}C$	lo			1.0			А
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	30			А		

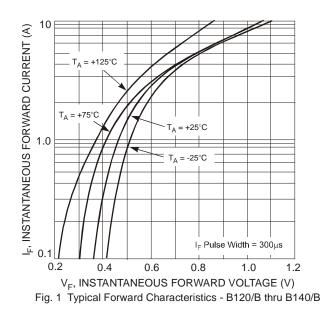
Thermal Characteristics

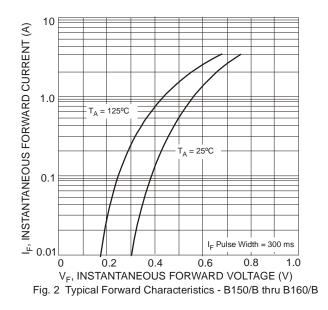
Characteristic	Symbol	B120/B	B130/B	B140/B	B150/B	B160/B	Unit
Typical Thermal Resistance Junction to Terminal (Note 6)	$R_{\theta JT}$	20		°C/W			
Operating and Storage Temperature Range	TJ, TSTG	-65 to +150		°C			

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

Chara	cteristic	Symbol	Min	Тур	Max	Unit	Test Condition
Forward Voltage Drop	B120/B, B130/B, B140/B B150/B, B160/B				0.5 0.7	V	I _F = 1.0A I _F = 1.0A
Leakage Current (Note 7)		I _R	-	-	0.5 10		@ Rated V_{R} , $T_{A} = +25^{\circ}C$ @ Rated V_{R} , $T_{A} = +100^{\circ}C$
Total Capacitance		CT	-	-	110	pF	$V_R = 4V, f = 1MHz$

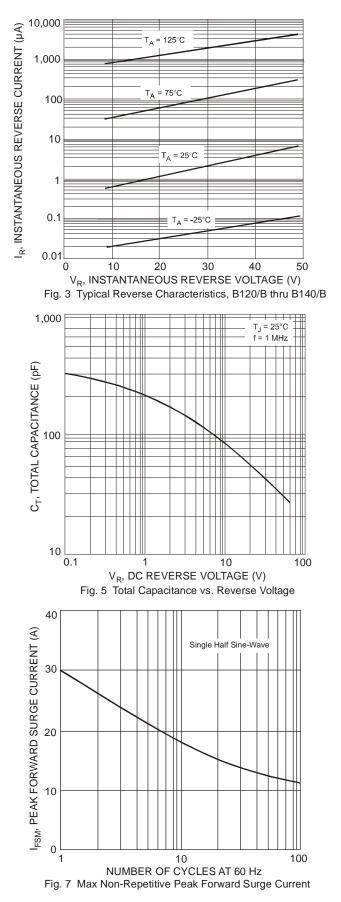
Notes: 6. Thermal Resistance: Junction to terminal, unit mounted on PC board with 5.0 mm² (0.013 mm thick) copper pads as heat sink. 7. Short duration pulse test used to minimize self-heating effect.

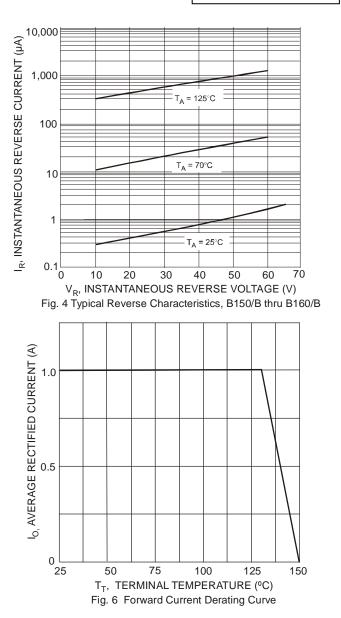






B120/B - B160/B

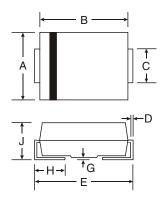






Package Outline Dimensions

Please see AP02002 at http://www.diodes.com/datasheets/ap02002.pdf for latest version.

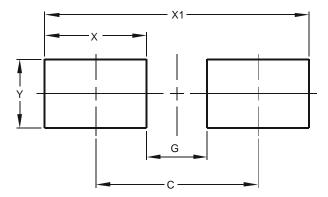


SMA				
Dim	Min	Max		
Α	2.29	2.92		
в	4.00	4.60		
с	1.27	1.63		
D	0.15	0.31		
ш	4.80	5.59		
G	0.05	0.20		
H	0.76	1.52		
J	2.01	2.30		
All Dimensions in mm				

SMB					
Dim	Min	Max			
Α	3.30	3.94			
B 4.06 4.57					
C 1.96 2.21					
D	0.15	0.31			
ш	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 AP02001 at http://www.diodes.com/datasheets/ap02001.pdf for the latest version.



Dimensions	SMA (in mm)	SMB (in mm)
С	4.00	4.30
G	1.50	1.80
Х	2.50	2.50
X1	6.50	6.80
Y	1.70	2.30



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