

## Maximum Ratings and Electrical Characteristics (@T<sub>A</sub> = +25°C, unless otherwise specified.)

Single phase, half wave, 60Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%.

Characteristic	Symbol	SB120	SB130	SB140	SB150	SB160	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>						
Working Peak Reverse Voltage	V <sub>RWM</sub>	20	30	40	50	60	V
DC Blocking Voltage	V <sub>R</sub>						
RMS Reverse Voltage	V <sub>R(RMS)</sub>	14	21	28	35	42	V
Average Rectified Output Current (Note 5) (See Figure 1)	I <sub>O</sub>	1.0					A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	40					A
Forward Voltage (Note 6) @ I <sub>F</sub> = 1.0A	V <sub>FM</sub>	0.50			0.70		V
Peak Reverse Current @ T <sub>A</sub> = +25°C	I <sub>RM</sub>	0.5					mA
at Rated DC Blocking Voltage (Note 6) @ T <sub>A</sub> = +100°C		10			5.0		
Typical Thermal Resistance Junction to Lead (Note 5)	R <sub>θJL</sub>	15					°C/W
Typical Thermal Resistance Junction to Ambient	R <sub>θJA</sub>	50					°C/W
Operating Temperature Range	T <sub>J</sub>	-65 to +125			-65 to +150		°C
Storage Temperature Range	T <sub>STG</sub>	-65 to +150					

Notes: 5. Measured at ambient temperature at a distance of 9.5mm from the case.  
 6. Short duration pulse test used to minimize self-heating effect.

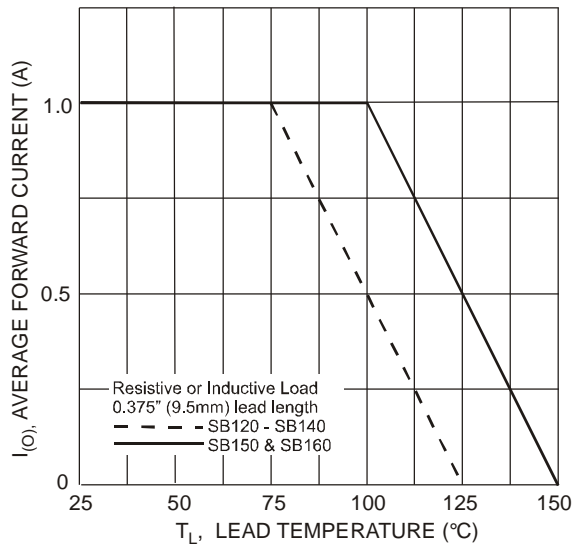


Fig. 1 Forward Current Derating Curve

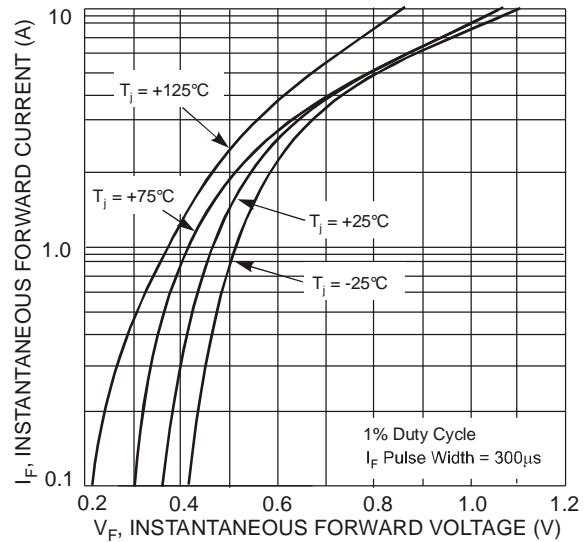


Fig. 2 Typical Forward Characteristics - SB120 thru SB140

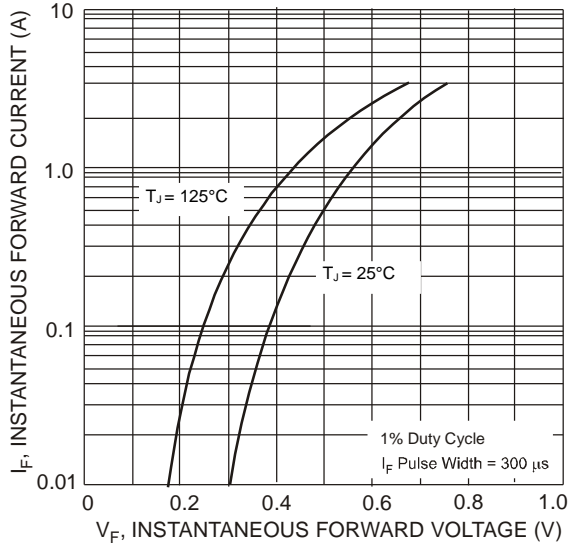


Fig. 3 Typical Forward Characteristics - SB150 thru SB160

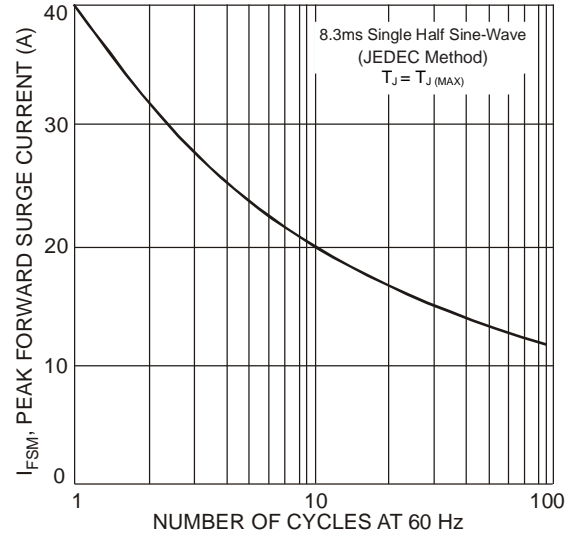


Fig. 4 Max Non-Repetitive Peak Fwd Surge Current

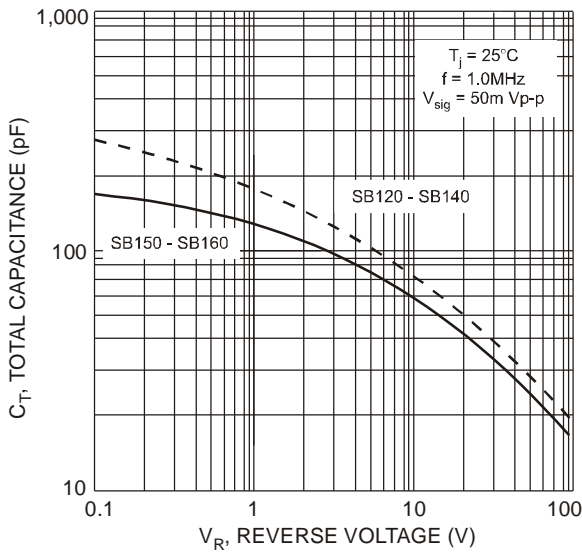


Fig. 5 Typical Total Capacitance

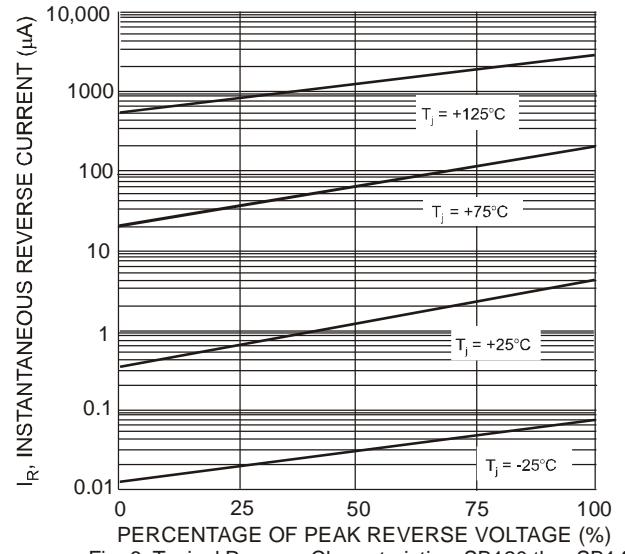


Fig. 6 Typical Reverse Characteristics, SB120 thru SB140

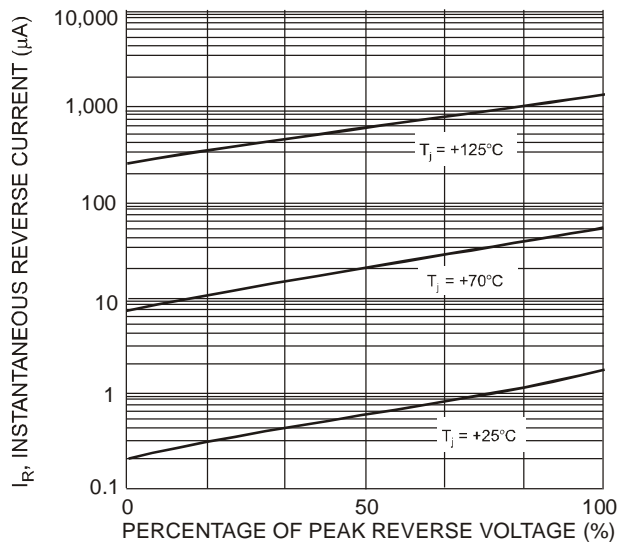
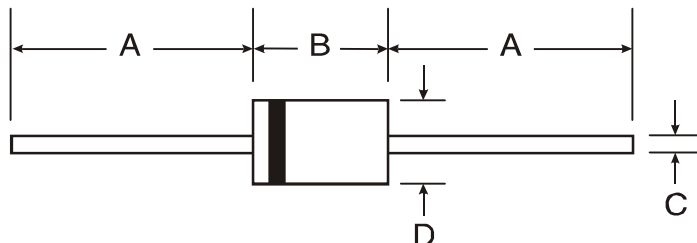


Fig. 7 Typical Reverse Characteristics, SB150 thru SB160

## Package Outline Dimensions

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

**DO-41 (Plastic)**



DO-41 (Plastic)		
Dim	Min	Max
A	25.40	-
B	4.06	5.21
C	0.71	0.864
D	2.00	2.72
All Dimensions in mm		

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