

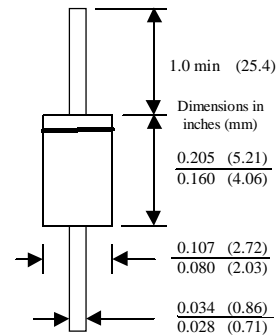
SB120 - SB1100

Features

- 1.0 ampere operation at $T_A = 75^\circ\text{C}$ with no thermal runaway.
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications.



DO-41
COLOR BAND DENOTES CATHODE



1.0 Ampere Schottky Barrier Rectifiers

Absolute Maximum Ratings*

$T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
I_O	Average Rectified Current .375" lead length @ $T_L = 75^\circ\text{C}$	1.0	A
$i_{f(\text{surge})}$	Peak Forward Surge Current 8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method)	30	A
P_D	Total Device Dissipation Derate above 25°C	1.25 12.5	W mW/ $^\circ\text{C}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	80	$^\circ\text{C}/\text{W}$
T_{stg}	Storage Temperature Range	-65 to +125	$^\circ\text{C}$
T_J	Operating Junction Temperature	-65 to +125	$^\circ\text{C}$

*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

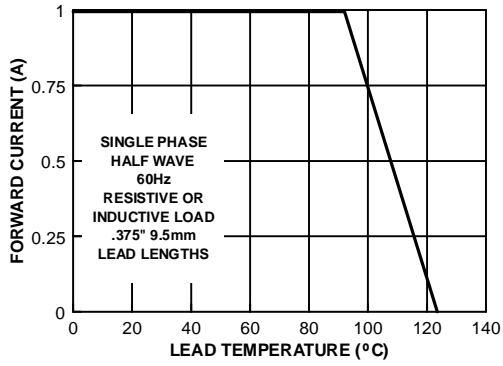
Electrical Characteristics

$T_A = 25^\circ\text{C}$ unless otherwise noted

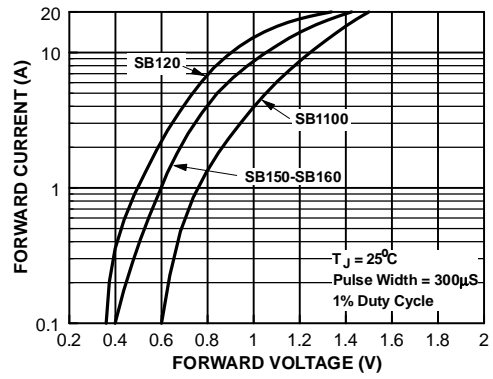
Parameter	Device							Units
	120	130	140	150	160	180	1100	
Peak Repetitive Reverse Voltage	20	30	40	50	60	80	100	V
Maximum RMS Voltage	14	21	28	35	42	56	80	V
DC Reverse Voltage (Rated V_R)	20	30	40	50	60	80	100	V
Maximum Reverse Current @ rated V_R $T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	0.5 10							mA mA
Maximum Forward Voltage @ 1.0 A	500		700		850			mV
Maximum Full Load Reverse Current, Full Cycle $T_A = 75^\circ\text{C}$	30							mA
Typical Junction Capacitance $V_R = 4.0\text{ V}$, $f = 1.0\text{ MHz}$	110							pF

Typical Characteristics

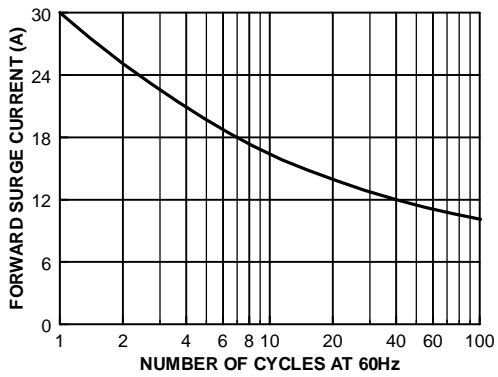
Forward Current Derating Curve



Forward Characteristics



Non-Repetitive Surge Current



Junction Capacitance

