

SB320 - SB3100

Features

- 3.0 ampere operation at T_A = 75 °C with no thermal runaway.
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications.



Schottky Rectifiers

Absolute Maximum Ratings*

T_A = 25 °C unless otherwise noted

Symbol	Parameter	Value							Units
		320	330	340	350	360	380	3100	
V _{RRM}	Maximum Repetitive Reverse Voltage	20	30	40	50	60	80	100	V
I _{F(AV)}	Average Rectified Forward Current .375 " lead length @ T _A = 75°C	3.0			Α				
I _{FSM}	Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave		80						Α
T _{stg}	Storage Temperature Range		-65 to +125						°C
T _J	Operating Junction Temperature		-65 to +125						°C

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

Thermal Characteristics

Symbol	Parameter	Value	Units
P_{D}	Power Dissipation	3.6	W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	40	°C/W

Electrical Characteristics T_A = 25 °C unless otherwise noted

Symbol	Parameter	Device							Units
-		320	330	340	350	360	380	3100	
V _F	Forward Voltage @ 3.0 A	500 740 850		350	mV				
I _R	Reverse Current @ rated V _R T _A = 25°C	0.5		mA					
	T _A = 100°C		20		1	0		10	mA
I _{rr}	Maximum Full Load Reverse Current, Full Cycle $T_A = 100$ °C 30			mA					
Ст	Total Capacitance V _R = 4.0 V, f = 1.0 MHz	' 180			pF				

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(continued)

Typical Characteristics

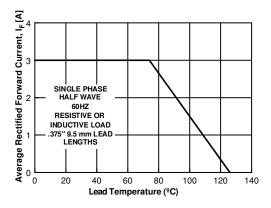


Figure 1. Forward Current Derating Curve

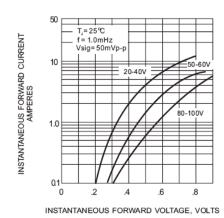


Figure 2. Forward Voltage Characteristics

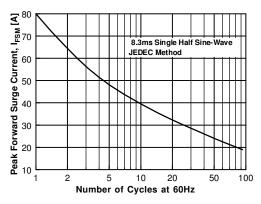


Figure 3. Non-Repetitive Surge Current

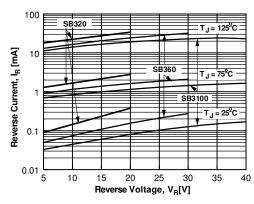


Figure 4. Reverse Current vs Reverse Voltage

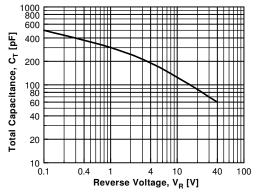


Figure 5. Total Capacitance

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