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SB520 - SB5100

Features

- Metal to silicon rectifier, majority carrier conduction.
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications.
- Low power loss, high efficiency.
- High current capability, low V_F
- High surge capacity.
- Glass passivated



DO-201AD COLOR BAND DENOTES CATHODE

Schottky Rectifiers

Absolute Maximum Ratings* T_a = 25°C unless otherwise noted

Symbol	Parameter	Value							Units
		520	530	540	550	560	580	5100	1
V_{RRM}	Maximum Repetitive Reverse Voltage		30	40	50	60	80	100	V
I _{F(AV)}	Average Rectified Forward Current .375 " lead length @ T _A = 75°C	5.0			А				
I _{FSM}	Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave			Α					
T _{stg}	Storage Temperature Range -50 to +150			°C					
TJ	Operating Junction Temperature -50 to +150			°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	5.0	W
$R_{\scriptscriptstyle{\theta JA}}$	Thermal Resistance, Junction to Ambient	25	°C/W

Electrical Characteristics T_A = 25°C unless otherwise noted

Symbol	Parameter		Device							
-			530	540	550	560	580	5100		
V_{F}	Forward Voltage @ 5.0 A	0.55		0.67		0.85		V		
I _R	Reverse Current @ rated V _R T _A = 25°C	0.5		mA						
	T _A = 100°C		50		25				mA	
Ст	Total Capacitance $V_R = 4.0 \text{ V}, f = 1.0 \text{ MHz}$	500		380				pF		

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SB520 - SB5100, Rev. C

Schottky Rectifiers

(continued)

Typical Characteristics

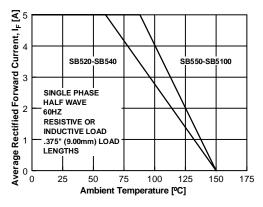


Figure 1. Forward Current Derating Curve

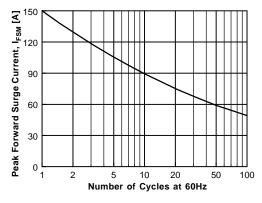


Figure 2. Non-Repetitive Surge Current

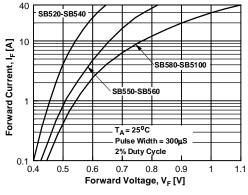


Figure 3. Forward Voltage Characteristics

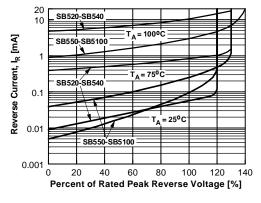


Figure 4. Reverse Current vs Reverse Voltage

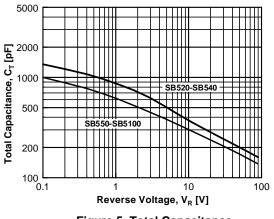


Figure 5. Total Capacitance

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