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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		Units				
		520	530	540	550	560	580
V_{RRM}	Maximum Repetitive Reverse Voltage	um Repetitive Reverse Voltage 20 30 40 50 60 80 100		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			
T _J	Operating Junction Temperature -50 to +150			°C			

 $[\]hbox{^{\bigstar}} These \ ratings \ are \ limiting \ values \ above \ which \ the \ service ability \ 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		0.67 0.85		V	
I _R	Reverse Current @ rated V _R T _A = 25°C	0.5			mA				
	T _A = 100°C		50			2	25		mA
C _T	Total Capacitance	500		500 380				pF	
	$V_R = 4.0 \text{ V}, f = 1.0 \text{ MHz}$				550			Рі	

Schottky Rectifiers

(continued)

Typical Characteristics

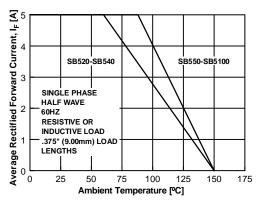


Figure 1. Forward Current Derating Curve

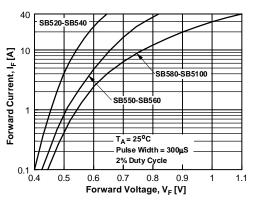


Figure 3. Forward Voltage Characteristics

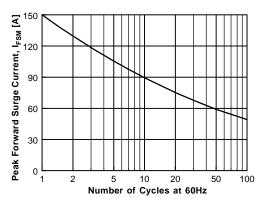


Figure 2. Non-Repetitive Surge Current

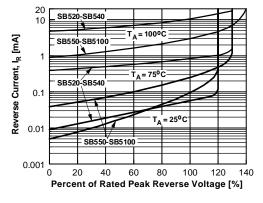


Figure 4. Reverse Current vs Reverse Voltage

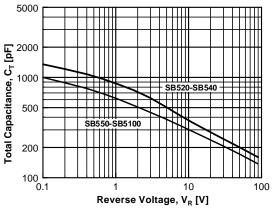


Figure 5. Total Capacitance

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