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SB520 - SB5100

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	
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	5.0							A
I _{FSM}	Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave	150							A
T _{stg}	Storage Temperature Range	-50 to +150							°C
T _J	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 _{θJA}	Thermal Resistance, Junction to Ambient	25	°C/W

Electrical Characteristics T_A = 25°C unless otherwise noted

Symbol	Parameter	Device							Units
		520	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
C _T	Total Capacitance V _R = 4.0 V, f = 1.0 MHz	500			380				pF

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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