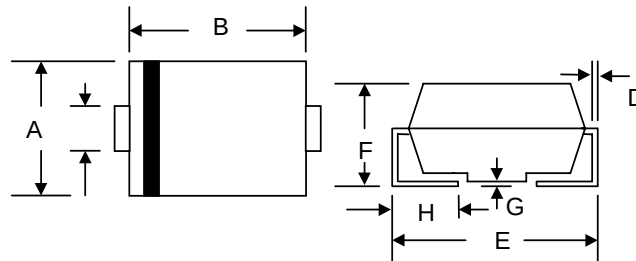


SS52 THRU SS510

SS52 - SS510

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



SMC/DO-214AB		
Dim	Min	Max
A	5.59	6.22
B	6.60	7.11
C	2.75	3.25
D	0.152	0.305
E	7.75	8.13
F	2.00	2.62
G	0.051	0.203
H	0.76	1.27
All Dimensions in mm		

Schottky Rectifiers

Absolute Maximum Ratings*

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

Symbol	Parameter	Value							Units
		52	53	54	55	56	58	510	
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 +175							°C
T _J	Operating Junction Temperature	-50 to +175							°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	6.0	W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	25	$^\circ\text{C}/\text{W}$

Electrical Characteristics

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

Symbol	Parameter	Device							Units
		52	53	54	55	56	58	510	
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 _n = 4.0 V, f = 1.0 MHz	500			380				pF

SS52 - SS510

Typical Characteristics

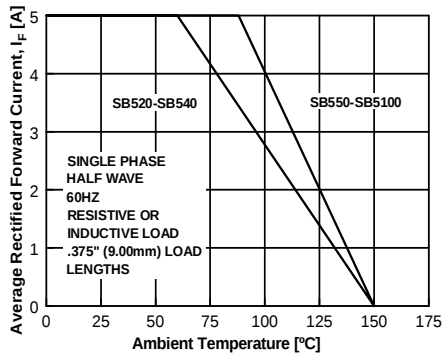


Figure 1. Forward Current Derating Curve

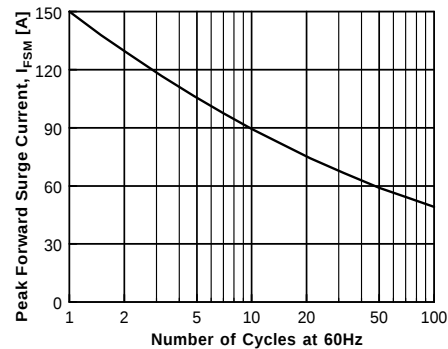


Figure 2. Non-Repetitive Surge Current

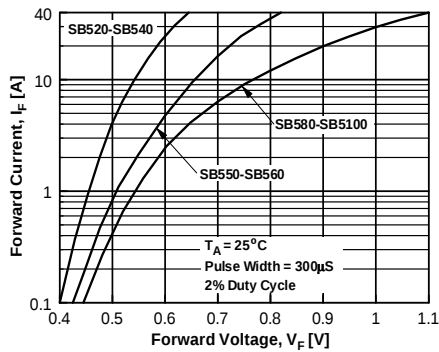


Figure 3. Forward Voltage Characteristics

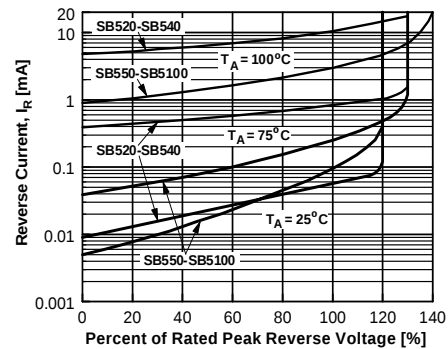


Figure 4. Reverse Current vs Reverse Voltage

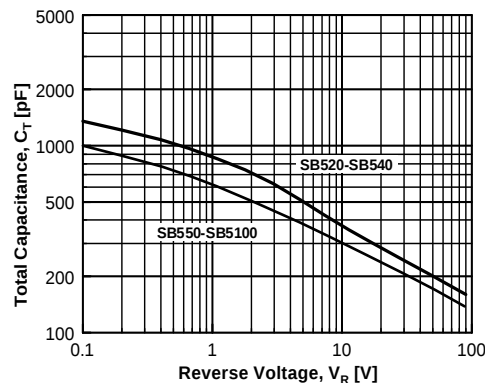


Figure 5. Total Capacitance