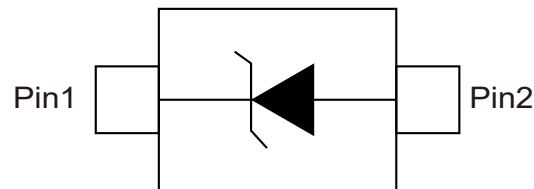


## 1.Features

- 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

## 2.Pinning Information



**SMC**

## 3.Thermal Characteristics

Parameter	Symbol	Value	Units
Power Dissipation	$P_D$	6	W
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	25	$^{\circ}\text{C/W}$



#### 4. Maximum Ratings\* And Electrical Characteristics

Parameter		Symbol	SS 52C	SS 53C	SS 54C	SS 55C	SS 56C	SS 58C	SS 510C	Unit
Maximum Repetitive Peak Reverse Voltage		V <sub>RRM</sub>	20	30	40	50	60	80	100	V
Maximum RMS Voltage		V <sub>RMS</sub>	14	21	28	35	42	56	70	V
Maximum DC blocking Voltage		V <sub>DC</sub>	20	30	40	50	60	80	100	V
Average Rectified Forward Current .375 " lead length @ T <sub>A</sub> =75°C		I <sub>F(AV)</sub>	5							A
Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave		I <sub>FSM</sub>	150							A
Forward Voltage @ 5.0 A		V <sub>F</sub>	0.55			0.67		0.85		V
Reverse Current @ Rated V <sub>R</sub>	T <sub>A</sub> =25°C	I <sub>R</sub>	0.5							mA
	T <sub>A</sub> =100°C		50			25			mA	
Total Capacitance, V <sub>R</sub> =4V, f=1MHz		C <sub>T</sub>	500			380			pF	
Storage Temperature Range		T <sub>STG</sub>	-50 to 150							°C
Operating Junction Temperature		T <sub>J</sub>	-50 to 150							°C

Notes: \*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.



## 5. Typical Characteristic

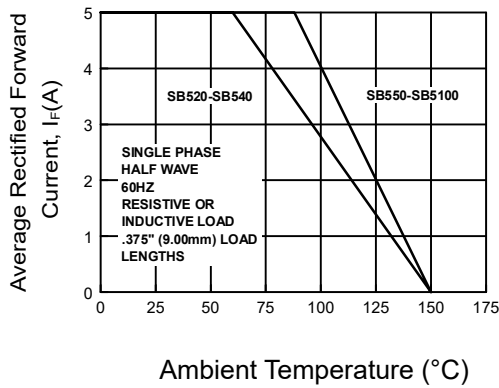


Figure 1: Forward Current Derating Curve

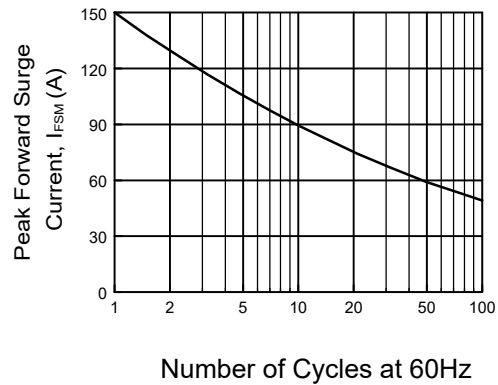


Figure 2: Non-Repetitive Surge Current

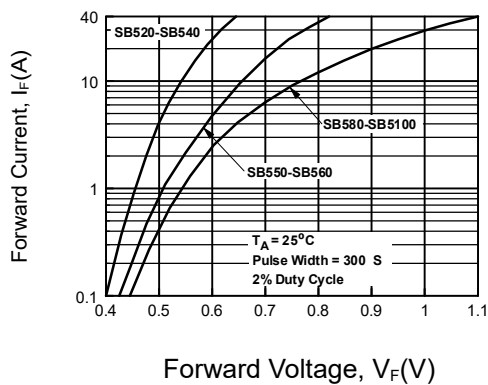


Figure 3: Forward Voltage Characteristics

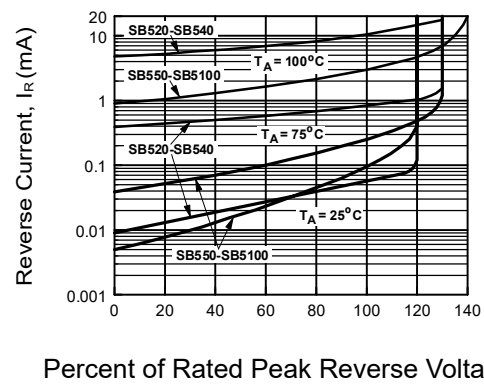


Figure 4: Reverse Current vs Reverse Voltage

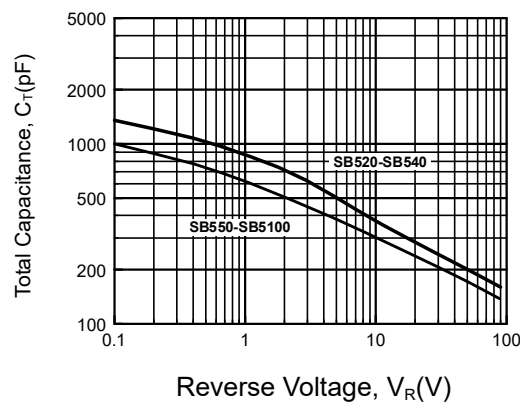
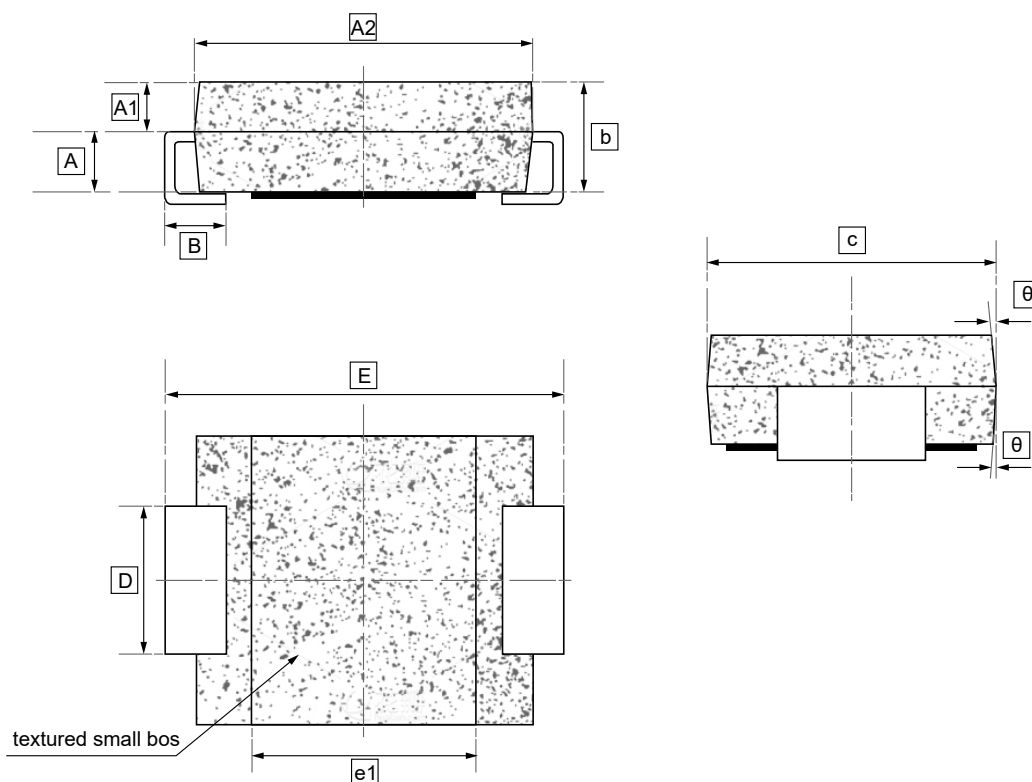


Figure 5: Total Capacitance



## 6.SMC Package Outline Dimensions

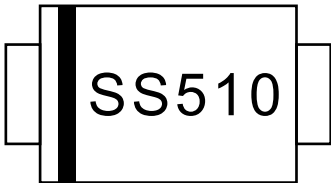


### DIMENSIONS (mm are the original dimensions)

Symbol	A	A1	A2	B	b	c	D	E	e1	θ
Min	1.17	0.97	6.80	1.00	2.25	5.80	2.98	7.90	4.40	0°
Max	1.23	1.03	6.90	1.40	2.35	5.90	3.02	8.10	4.60	6°



7 .Ordering Information



Order Code	Marking	Package	Base QTY	Delivery Mode
UMW SS52C	SS52	SMC	3000	Tape and reel
UMW SS53C	SS53	SMC	3000	Tape and reel
UMW SS54C	SS54	SMC	3000	Tape and reel
UMW SS55C	SS55	SMC	3000	Tape and reel
UMW SS56C	SS56	SMC	3000	Tape and reel
UMW SS58C	SS58	SMC	3000	Tape and reel
UMW SS510C	SS510	SMC	3000	Tape and reel



## 8.Disclaimer

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