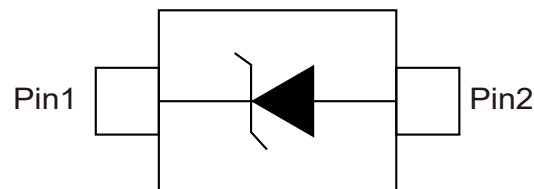


## 1.Features

- 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.Maximum Ratings\* And Electrical Characteristics

Parameter		Symbol	SS 52	SS 53	SS 54	SS 55	SS 56	SS 58	SS 510	Unit
Maximum Repetitive Reverse Voltage		V <sub>RRM</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.



4.Thermal Characteristics

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



## 5. Typical characteristic

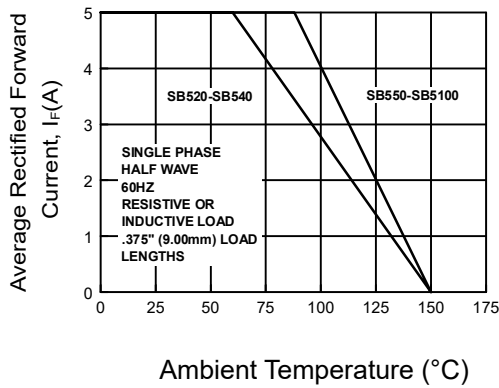


Figure 1: Forward Current Derating Curve

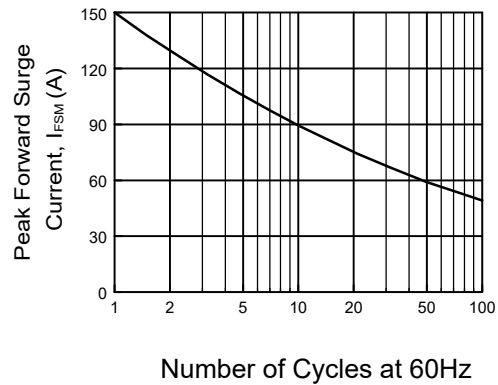


Figure 2: Non-Repetitive Surge Current

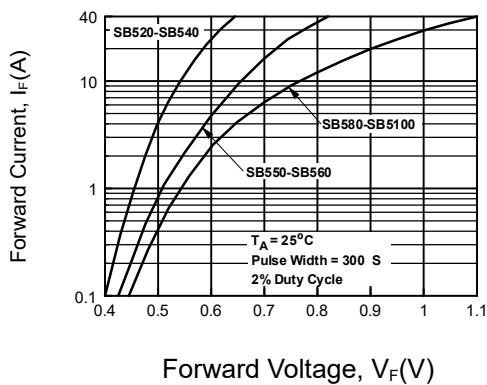


Figure 3: Forward Voltage Characteristics

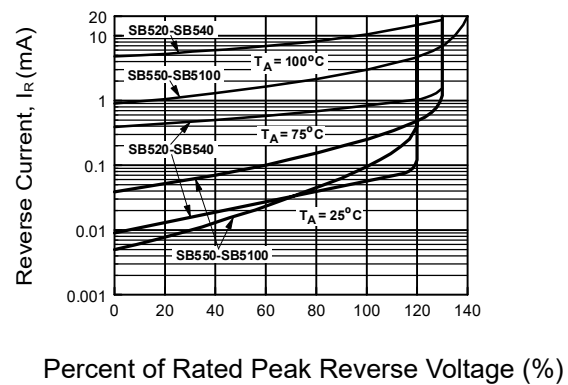


Figure 4: Reverse Current vs Reverse Voltage

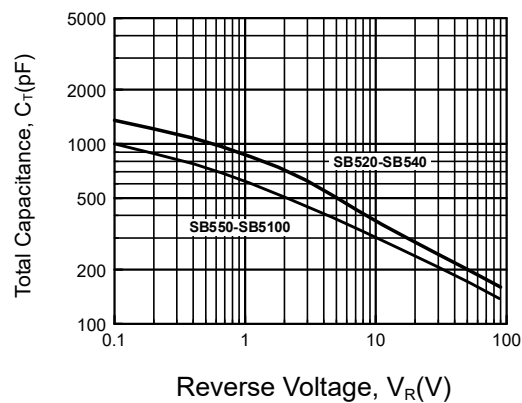
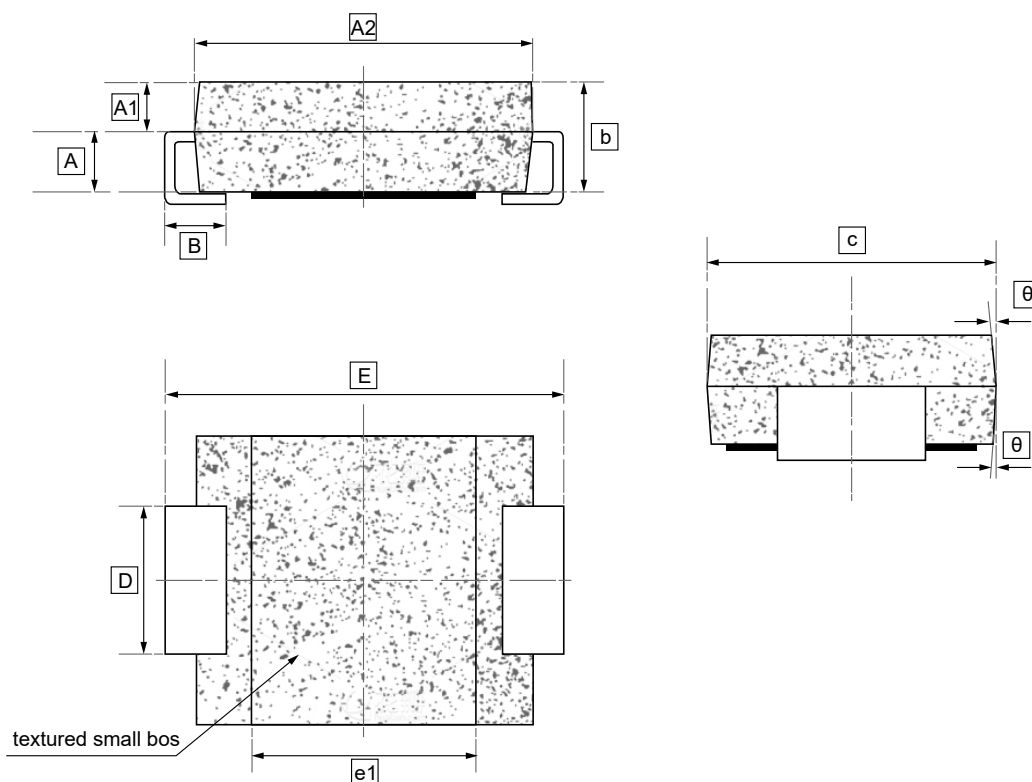


Figure 5: Total Capacitance



## 6.SMC Package Outline Dimensions

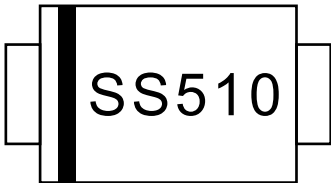


### DIMENSIONS (mm are the original dimensions)

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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