

## 1.Features

- Plastic Package has Underwriters Laboratory
- Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- For surface mount applications
- Guard ring for overvoltage protection
- Low power loss, high efficiency
- High current capability, Low forward voltage drop
- High surge capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering guaranteed : 250°C/10 seconds at terminals

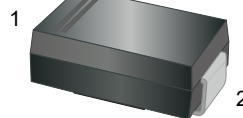
## 2.Mechanical Data

- Case: JEDEC SMC(DO-214AB) molded plastic body
- Polarity : Color band denotes cathode end
- Terminals : Solder Plate, solderable per MIL-STD-750, Method 2026
- Weight : 0.003 ounce, 0.093 gram

## 3.Pinning information

Pin	Symbol	Description
1	C	Cathode
2	A	Anode

SMC





#### 4. Maximum Ratings And Electrical Characteristics

Parameter		Symbol	SS 32C	SS 33C	SS 34C	SS 35C	SS 36C	SS 39C	SS 310C	SS 315C	SS 320C	Unit
Maximum repetitive peak reverse voltage		V <sub>RRM</sub>	20	30	40	50	60	90	100	150	200	V
Maximum RMS voltage		V <sub>RMS</sub>	14	21	28	35	42	63	70	105	140	V
Maximum DC blocking voltage		V <sub>DC</sub>	20	30	40	50	60	90	100	150	200	V
Maximum Average Forward Rectified Current		I <sub>F(AV)</sub>	3									A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)		I <sub>FSM</sub>	100			70						A
Maximum Instantaneous Forward Voltage (Note 1) @ 3.0A	T <sub>A</sub> =25°C	V <sub>F</sub>	0.5			0.75		0.85		0.95		V
	T <sub>A</sub> =100°C		0.4			0.65		0.70		0.80		
Maximum Reverse Current @ Rated V <sub>R</sub>	T <sub>A</sub> =25°C	I <sub>R</sub>	0.5				0.1				mA	
	T <sub>A</sub> =100°C		10		5		2					
	T <sub>A</sub> =125°C		1				0.5					
Typical Thermal Resistance		R <sub>θJL</sub>	17									°C/W
		R <sub>θJA</sub>	55									°C/W
Junction temperature range		T <sub>J</sub>	-55 to 125			-55 to 150						°C
Storage temperature range		T <sub>STG</sub>	-55 to 150									°C

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Notes:

1. Pulse Test with PW=300 usec, 1% Duty Cycle.



## 5. Typical characteristic

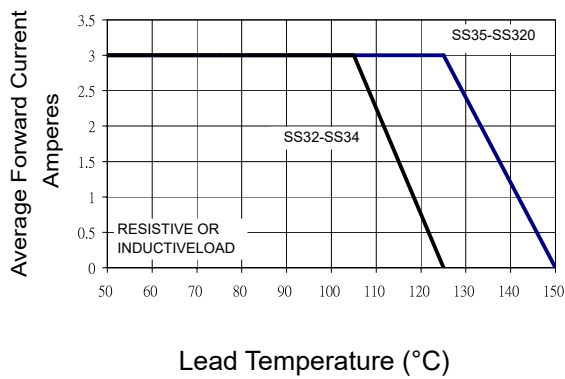


Figure 1: Forward Current Derating Curve

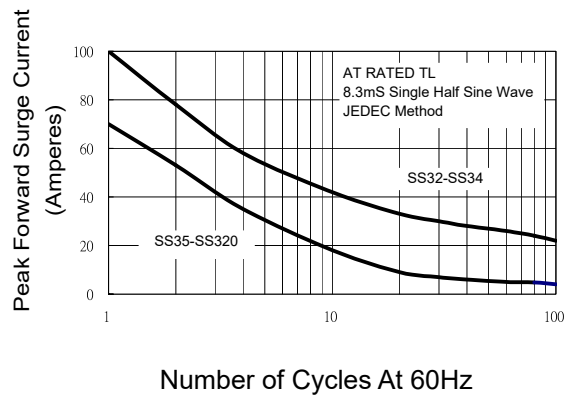


Figure 2: Maximum Non-repetitive Peak Forward Surge Current

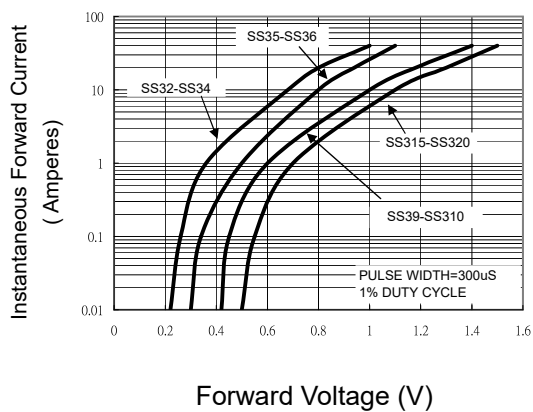


Figure 3: Typical Forward Characteristics

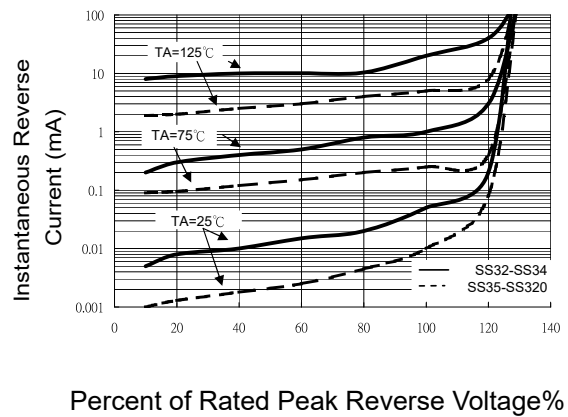


Figure 4: Typical Reverse Characteristics

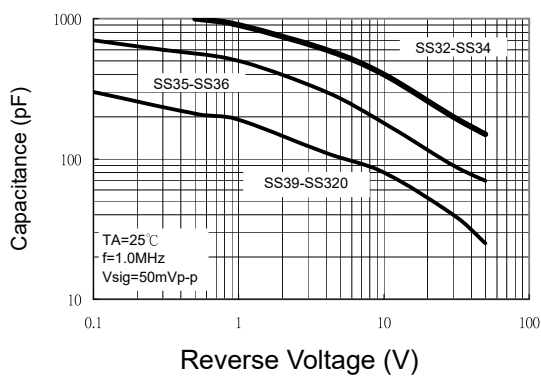


Figure 5: Typical Junction Capacitance

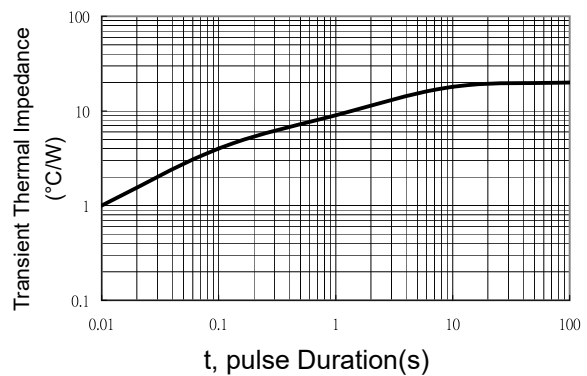
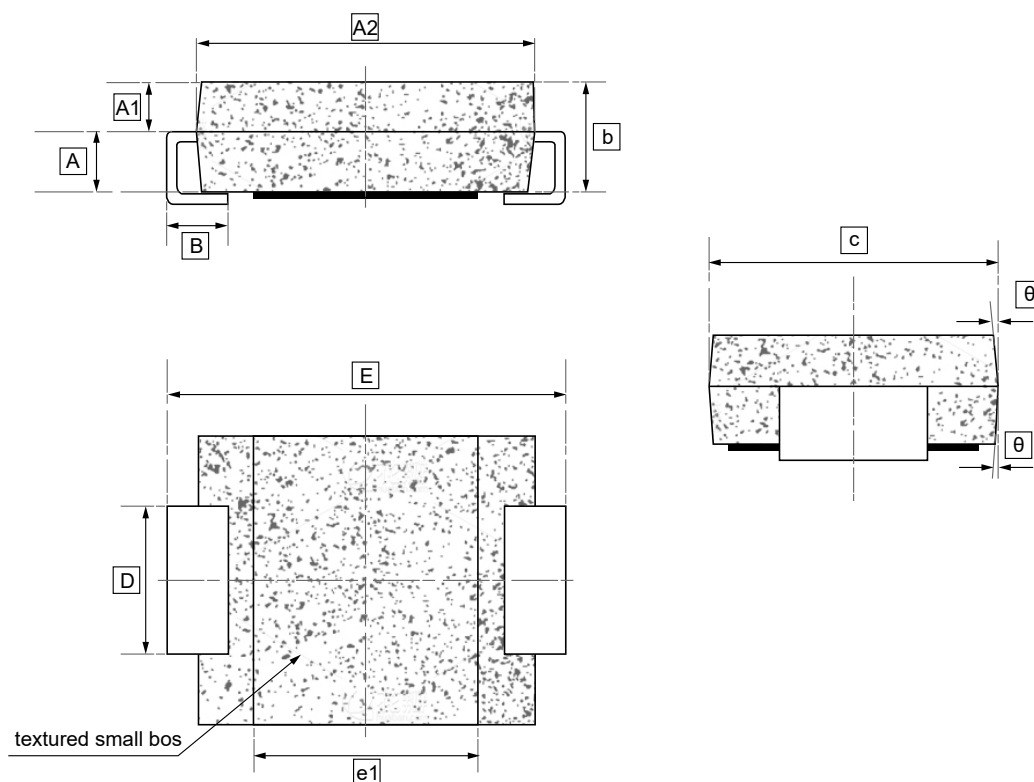


Figure 6: Typical Transient Thermal Impedance



## 6.SMC Package Outline Dimensions

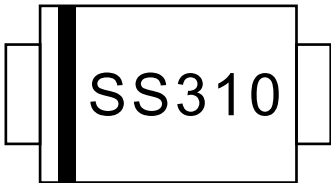


### DIMENSIONS (mm are the original dimensions)

Symbol	A	A1	A2	B	b	c	D	E	e1	$\theta$
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 SS32C	SS32	SMC	3000	Tape and reel
UMW SS33C	SS33	SMC	3000	Tape and reel
UMW SS34C	SS34	SMC	3000	Tape and reel
UMW SS35C	SS35	SMC	3000	Tape and reel
UMW SS36C	SS36	SMC	3000	Tape and reel
UMW SS39C	SS39	SMC	3000	Tape and reel
UMW SS310C	SS310	SMC	3000	Tape and reel
UMW SS315C	SS315	SMC	3000	Tape and reel
UMW SS320C	SS320	SMC	3000	Tape and reel



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