UMW SS32A THRU SS320A

20V-200V 3.0A

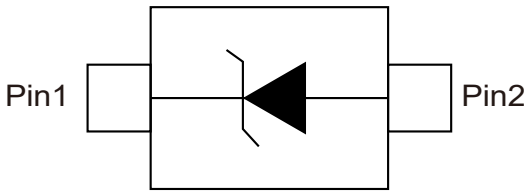
1.Features

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

3.Pinning information



SMA

4.Maximum Ratings And Electrical Characteristics

Parameter		Symbols	SS 32A	SS 33A	SS 34A	SS 35A	SS 36A	SS 38A	SS 310A	SS 315A	SS 320A	Units
Maximum repetitive peak reverse voltage		V_{RRM}	20	30	40	50	60	80	100	150	200	V
Maximum RMS voltage		V_{RMS}	14	21	28	35	42	56	71	105	140	V
Maximum DC blocking voltage		V_{DC}	20	30	40	50	60	80	100	150	200	V
Maximum Average Forward Rectified Current		$I_{F(AV)}$	3									A
Peak Forward Surge Current, 8.3 ms Single Half Sinewave Superimposed on Rated Load (JEDEC method)		I_{FSM}	100			70						A
Maximum instantaneous forward voltage at 3.0 A(Note 1)	T_A=25°C	V_F	0.5			0.75		0.85		0.95		V
	T_A=100°C		0.4			0.65		0.70		0.80		V
Maximum Reverse Current @ Rated V_R	T_A=25°C	I_R	0.5					0.1				mA
	T_A=100°C		10			5		2				mA
	T_A=125°C							0.5				mA
Typical thermal resistance		$R_{\theta JL}$	17									°C/W
		$R_{\theta JA}$	55									°C/W
Junction Temperature Range		T_J	-55 to 125			-55 to 150						°C
Storage Temperature Range		T_{STG}	-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: Pluse Test with PW=300 usec, 1% Duty Cycle.

5.Typical characteristic

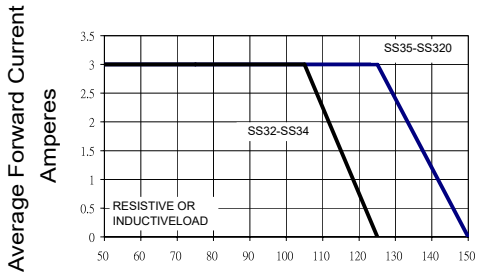


Figure 1: Forward Current Derating Curve

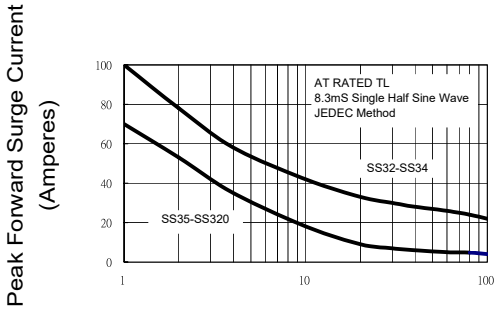


Figure 2: Maximum Non-repetitive Peak Forward Surge Current

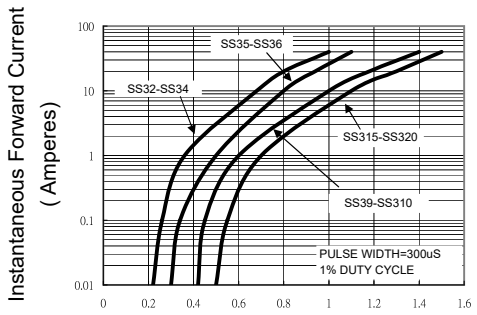


Figure 3: Typical Forward Characterisrics

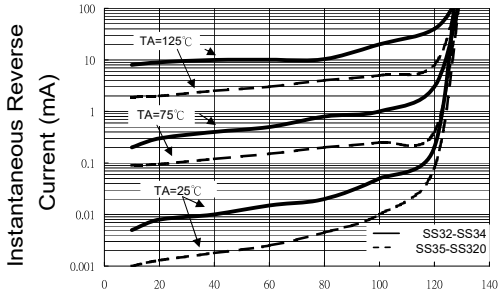


Figure 4: Typical Reverse Characteristics

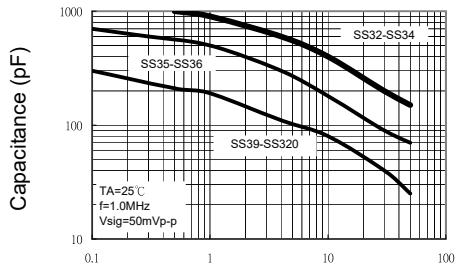


Figure 5: Typical Junction Capacitance

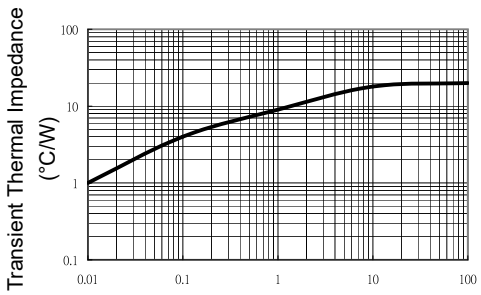
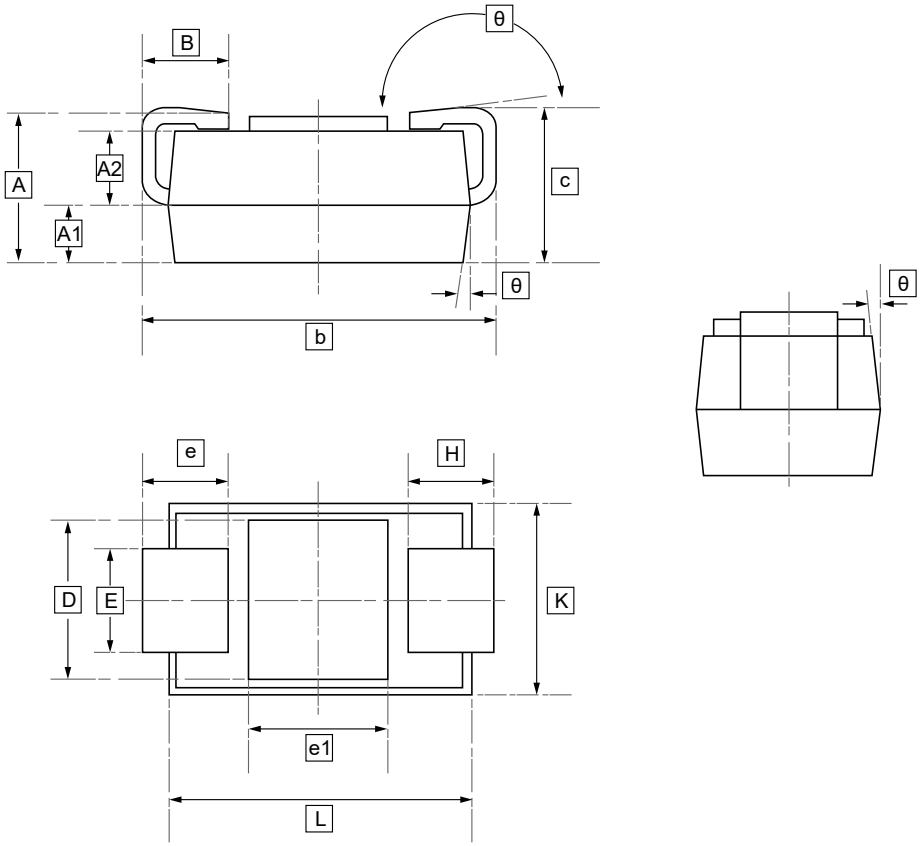


Figure 6: Typical Transient Thermal Impedance

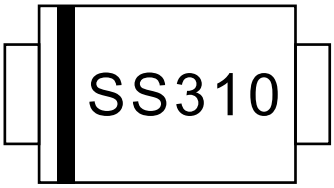
6.SMA Package Outline Dimensions



DIMENSIONS (mm are the original dimensions)

Symbol	A	A1	A2	B	b	c	D	E	e1	L	K	θ
Min	1.95	0.70	0.90	0.78	4.93	1.95	2.0	1.25	1.90	4.20	2.35	0°
Max	2.29	0.90	1.10	1.52	5.28	2.25	2.25	1.65	2.10	4.40	2.79	5°

7 .Ordering information



Order Code	Marking	Package	Base QTY	Delivery Mode
UMW SS32A	SS32	SMA	2000	Tape and reel
UMW SS33A	SS33	SMA	2000	Tape and reel
UMW SS34A	SS34	SMA	2000	Tape and reel
UMW SS35A	SS35	SMA	2000	Tape and reel
UMW SS36A	SS36	SMA	2000	Tape and reel
UMW SS38A	SS38	SMA	2000	Tape and reel
UMW SS310A	SS310	SMA	2000	Tape and reel
UMW SS315A	SS315	SMA	2000	Tape and reel
UMW SS320A	SS320	SMA	2000	Tape and reel

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