

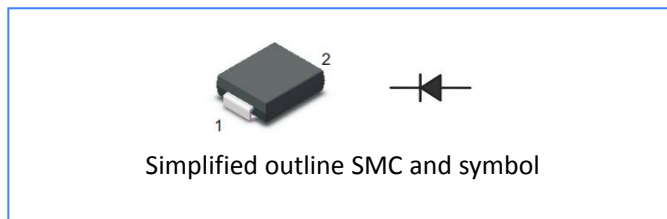
## RS3AC THRU RS3MC

### Features

- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place
- Fast reverse recovery time
- Lead free in comply with EU RoHS 2011/65/EU directives

### Mechanical Data

- Case: SMC
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.22g / 0.0077oz



### Pinning

PIN	DESCRIPTION
1	Cathode
2	Anode

### Absolute Maximum Ratings And Characteristics

Ratings 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%.

Parameter	Symbols	RS3AC	RS3BC	RS3DC	RS3GC	RS3JC	RS3KC	RS3MC	Units
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at Tc = 125 °C	I <sub>F(AV)</sub>	3							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I <sub>FSM</sub>	90							A
Maximum Forward Voltage at 1 A	V <sub>F</sub>	1.3							V
Maximum DC Reverse Current Ta = 25 °C at Rated DC Blocking Voltage Ta =125 °C	I <sub>R</sub>	5 100							μ A
Typical Junction Capacitance at VR=4V f=1M	C <sub>j</sub>	40							pF
Maximum Reverse Recovery Time <sup>(1)</sup>	t <sub>rr</sub>	150				250	500		ns
Typical Thermal Resistance <sup>(2)</sup>	R <sub>θJA</sub>	45							°C/W
	R <sub>θJC</sub>	15							
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>stg</sub>	-55 ~ +150							°C

(1) Measured with  $I_F = 0.5\text{A}$ ,  $I_R = 1\text{A}$ ,  $I_{rr} = 0.25\text{A}$ 

(2) .P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

## Rating And Characteristic Curves

Fig.1 Maximum Average Forward Current Rating

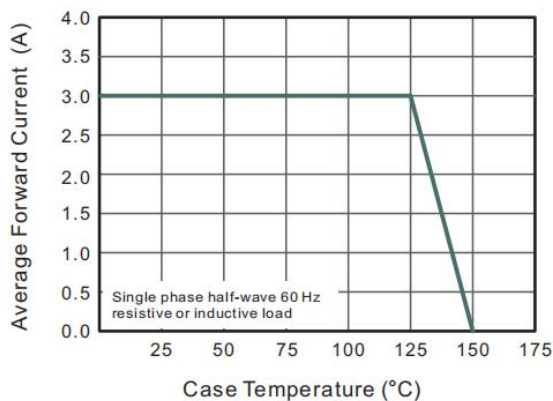


Fig.2 Typical Reverse Characteristics

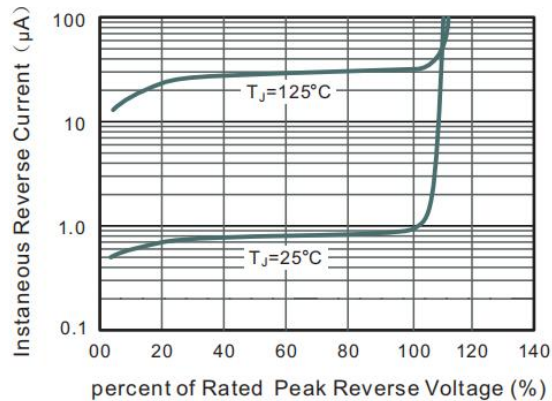


Fig.3 Typical Instantaneous Forward Characteristics

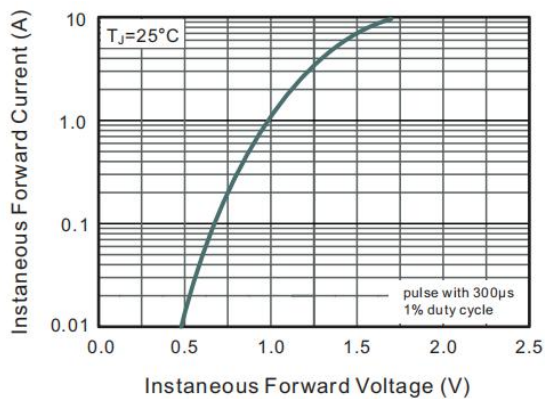


Fig.4 Typical Junction Capacitance

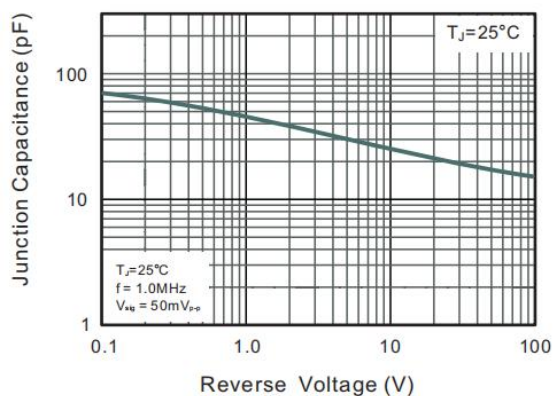
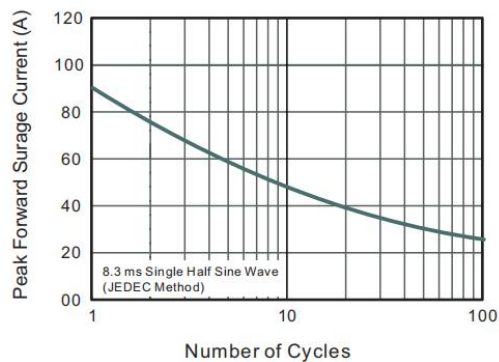


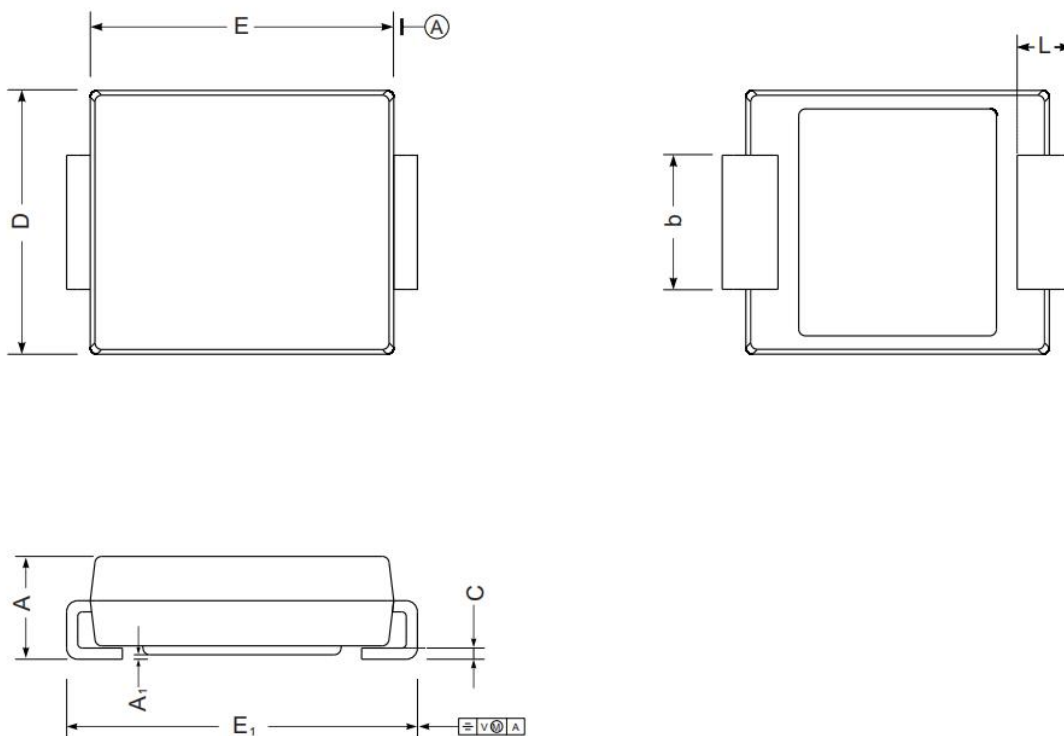
Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



## Package Outline

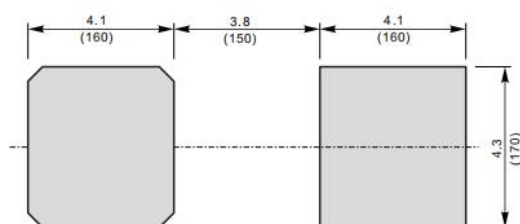
Plastic surface mounted package; 2 leads

SMC



UNIT		A	C	D	E	E1	A1	L	b
mm	max	2.62	0.31	6.2	7.0	8.0	0.21	1.6	3.25
	min	2.00	0.15	5.6	6.5	7.6	0.05	0.9	2.75
mil	max	103	12	244	276	315	8.3	63	128
	min	79	5.9	220	256	299	2.0	35	108

The recommended mounting pad size



Unit :  $\frac{\text{mm}}{(\text{mil})}$