



# RS2A THRU RS2M

Surface Mount Fast Recovery Rectifiers  
Reverse Voltage - 50 to 1000 V  
Forward Current - 2 A

## FEATURES

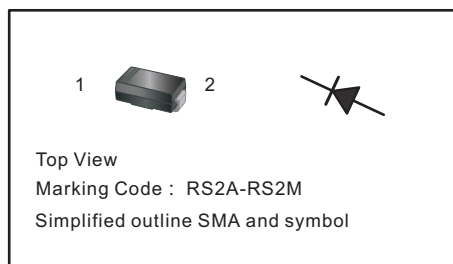
- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place
- Fast reverse recovery time
- Lead free in comply with EU RoHS 2011/65/EU directives

## MECHANICAL DATA

- Case: SMA
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.055g / 0.002oz

## 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	RS2A	RS2B	RS2D	RS2G	RS2J	RS2K	RS2M	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 T <sub>c</sub> = 125 °C	I <sub>F(AV)</sub>	2							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I <sub>FSM</sub>	50							A
Maximum Forward Voltage at 2 A	V <sub>F</sub>	1.3							V
Maximum DC Reverse Current T <sub>a</sub> = 25 °C at Rated DC Blocking Voltage T <sub>a</sub> =125 °C	I <sub>R</sub>	5 100							μA
Typical Junction Capacitance at V <sub>R</sub> =4V, f=1MHz	C <sub>j</sub>	22							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> R <sub>θJC</sub>	65 20							°C/W
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>stg</sub>	-55 ~ +150							°C

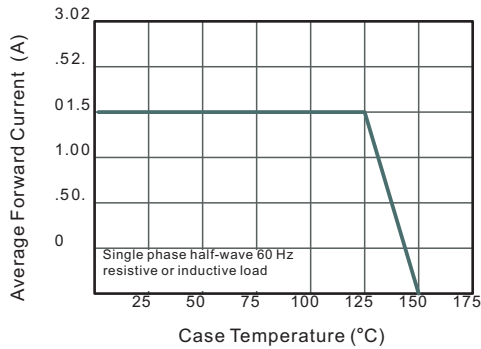
(1) Measured with  $I_F = 0.5\text{A}$ ,  $I_R = 1\text{A}$ ,  $I_{rr} = 0.25\text{A}$ .

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

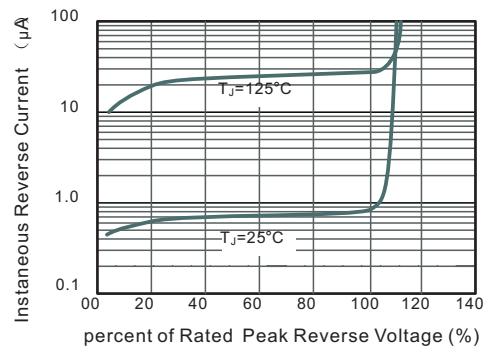
# Rating and Characteristic Curves ( $T_A = 25^\circ\text{C}$ Unless otherwise noted )

## RS2A THRU RS2M

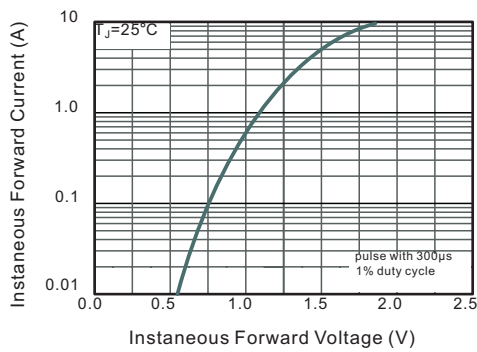
**Fig.1 Forward Current Derating Curve**



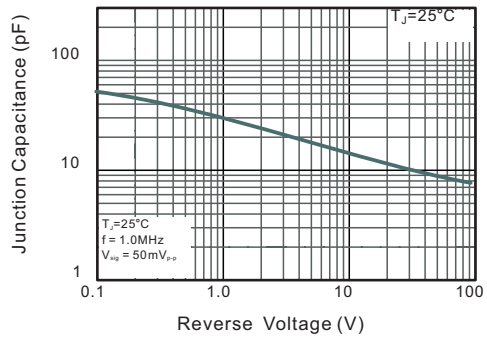
**Fig.2 Typical Reverse Characteristics**



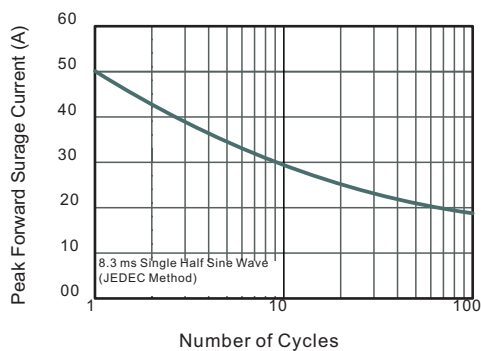
**Fig.3 Typical Instantaneous Forward Characteristics**



**Fig.4 Typical Junction Capacitance**



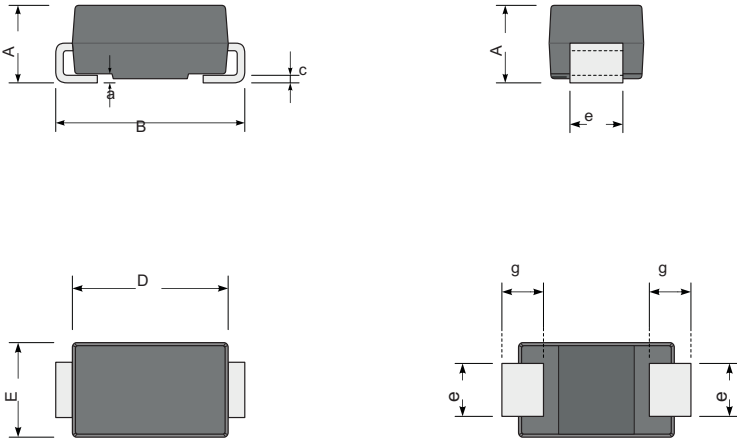
**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**



PACKAGE OUTLINE

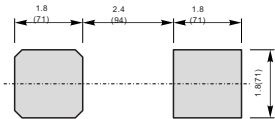
Plastic surface mounted package; 2 leads

SMA



UNIT		A	D	E	B	c	e	g	a
mm	max	2.2	4.5	2.8	5.3	0.31	1.6	1.5	0.3
	min	1.9	4.0	2.4	4.8	0.15	1.3	0.9	
mil	max	87	181	110	209	12	63	59	12
	min	75	157	94	189	6	51	35	

The recommended mounting pad size



Unit : mm  
(mil)

Marking

Type number	Marking code
RS2A	RS2A
RS2B	RS2B
RS2D	RS2D
RS2G	RS2G
RS2J	RS2J
RS2K	RS2K
RS2M	RS2M