



# RS2AF SERIES

## SURFACE MOUNT FAST RECOVERY RECTIFIER

**VOLTAGE** 50 to 600 Volts **CURRENT** 2 Ampere

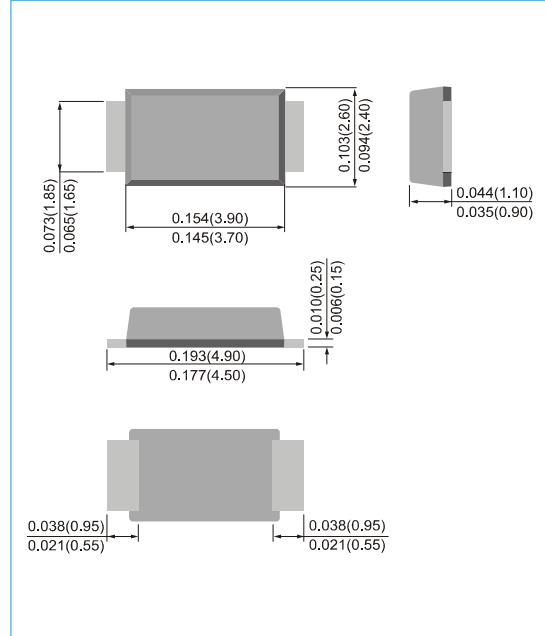
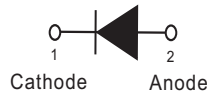
**SMAF** Unit : inch(mm)

### FEATURES

- For surface mounted applications
- Easy pick and place
- Fast Recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Glass passivated junction
- Ultra Thin Profile Package for Space Constrained Utilization
- Package suitable for Automated Handling
- Lead free in comply with EU RoHS 2011/65/EU directives.
- Green molding compound as per IEC61249 Std

### MECHANICAL DATA

- Case: SMAF molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0011 ounce, 0.0328 grams
- Polarity: Color band denotes cathode end



### MAXIMUM RATINGS AND ELECTRICAL 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%.

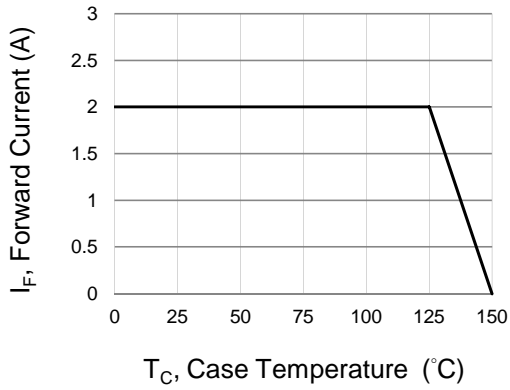
PARAMETER	SYMBOL	RS2AF	RS2BF	RS2DF	RS2GF	RS2JF	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	2					A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	50					A
Maximum Forward Voltage at 2A	$V_F$	1.3					V
Maximum DC Reverse Current $T_J=25^\circ\text{C}$	$I_R$	1					$\mu\text{A}$
Typical Junction Capacitance ( $V_R=4\text{V}$ $f=1\text{MHz}$ )	$C_J$	24				14	pF
Typical Thermal Resistance (Note 1) (Note 2)	$R_{\theta JL}$ $R_{\theta JA}$	22 150					$^\circ\text{C} / \text{W}$
Maximum Reverse Recovery Time	$T_{rr}$	150				250	nS
Operating Junction and Storage Temperature Range	$T_{J,T_{STG}}$	-55 to +150					$^\circ\text{C}$

NOTES : 1. Mounted on an FR4 PCB, single-sided copper, with 100cm<sup>2</sup> copper pad area.  
2. Mounted on an FR4 PCB, single-sided copper, mini pad.

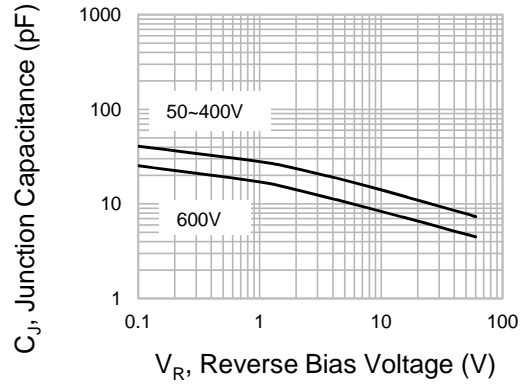


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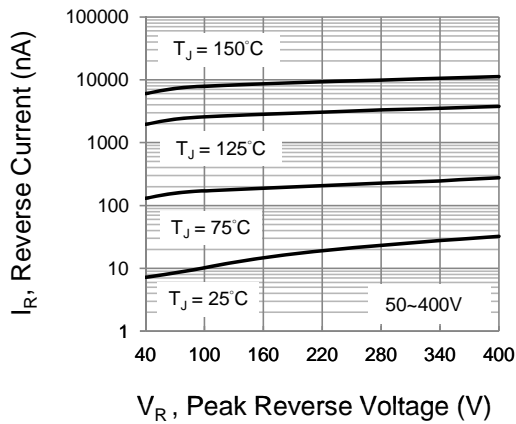
## RATING AND CHARACTERISTIC CURVES



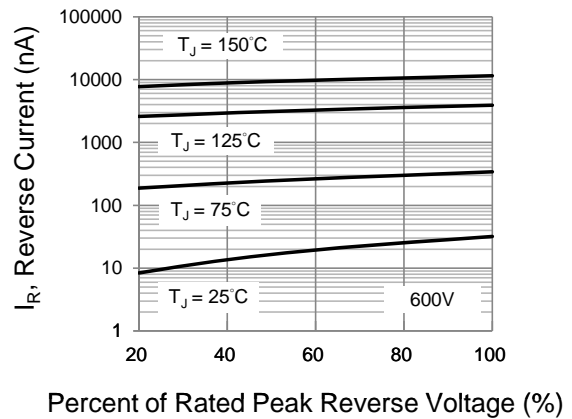
**Fig.1 Forward Current Derating Curve**



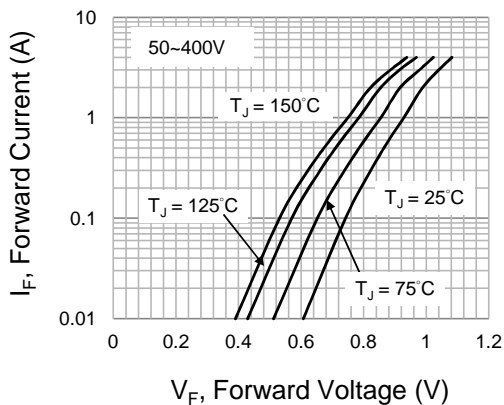
**Fig.2 Typical Junction Capacitance**



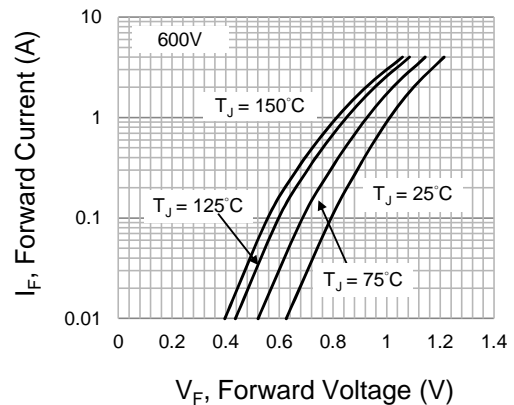
**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Reverse Characteristics**



**Fig.5 Typical Forward Characteristics**



**Fig.6 Typical Forward Characteristics**

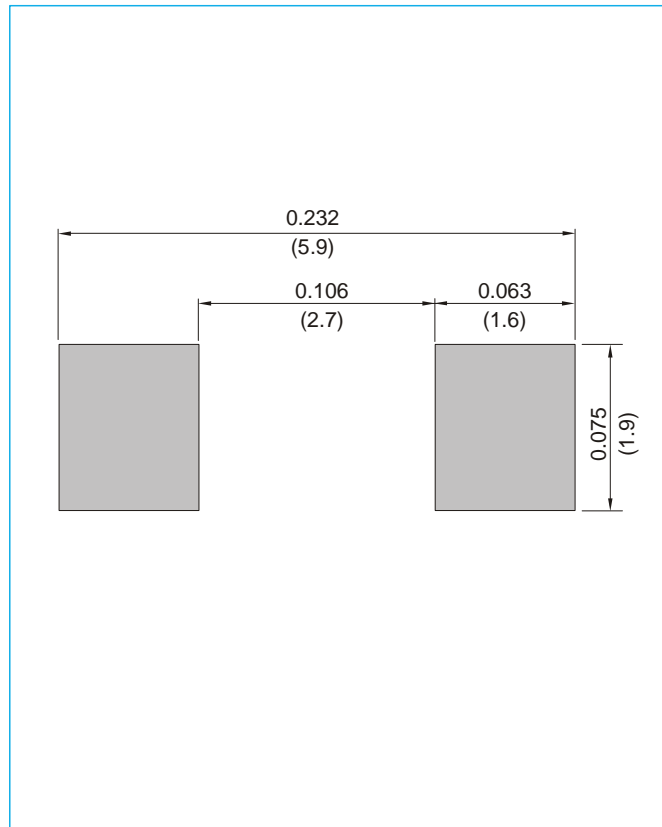


## RS2AF SERIES

### MOUNTING PAD LAYOUT

SMAF

Unit : inch(mm)



### ORDER INFORMATION

- Packing information
  - T/R - 10K per 13" plastic Reel
  - T/R - 3K per 7" plastic Reel



## RS2AF SERIES

### Part No\_packing code\_Version

RS2AF\_R1\_00001

RS2AF\_R2\_00001

For example :

**RB500V-40\_R2\_00001**



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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