

# ER2AF SERIES

## SURFACE MOUNT SUPERFAST RECTIFIER

**VOLTAGE** 50~600 Volt **CURRENT** 2 Ampere

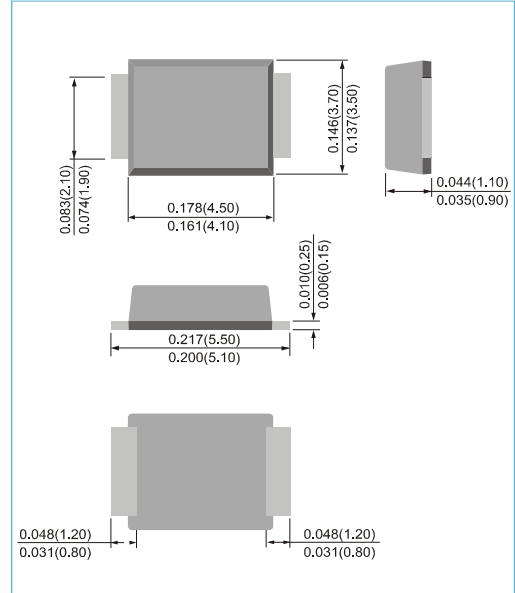
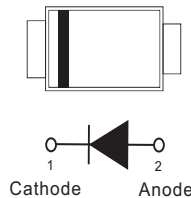
**SMBF** Unit : inch(mm)

### FEATURES

- For surface mounted applications in order to optimize board space
- High temperature metallurgically bonded-no compression
- Easy pick and place
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Glass passivated junction
- Lead free in compliance with EU RoHS 2011/65/EU directive.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### MECHANICAL DATA

- Case: SMBF molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750,Method 2026
- Approx. Weight: 0.0018 ounces, 0.05 grams
- Polarity: Color band denotes cathode end



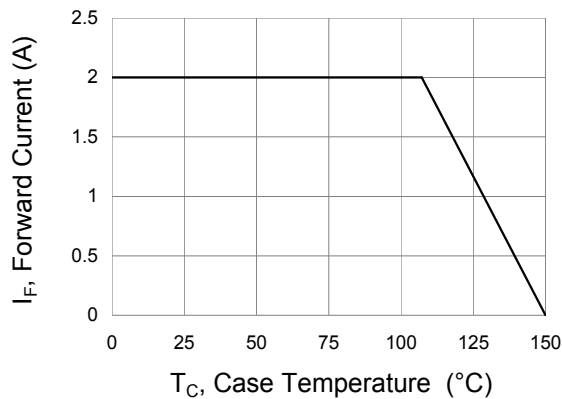
## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise noted)

PARAMETER	SYMBOL	ER2AF	ER2BF	ER2CF	ER2DF	ER2EF	ER2GF	ER2JF	UNITS
Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	150	200	300	400	600	V
RMS Voltage	V <sub>RMS</sub>	35	70	105	140	210	280	420	V
DC Blocking Voltage	V <sub>R</sub>	50	100	150	200	300	400	600	V
Average Forward Current	I <sub>F(AV)</sub>	2							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	50							A
Forward Voltage at 2A	V <sub>F</sub>	0.95				1.25		1.7	V
DC Reverse Current at Rated DC Blocking Voltage T <sub>J</sub> =25°C	I <sub>R</sub>	1							μA
Typical Junction capacitance V <sub>R</sub> =4V,f=1MHz	C <sub>J</sub>	30				20			pF
Typical Thermal Resistance ,Junction to Lead (Note 1) Junction to Ambient (Note 2)	R <sub>θJL</sub> R <sub>θJA</sub>	18 135							°C / W
Reverse Recovery Time (I <sub>F</sub> =0.5A, I <sub>R</sub> =1A,I <sub>rr</sub> =0.25A)	T <sub>rr</sub>	35							ns
Operating Junction Temperature and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to +150							°C

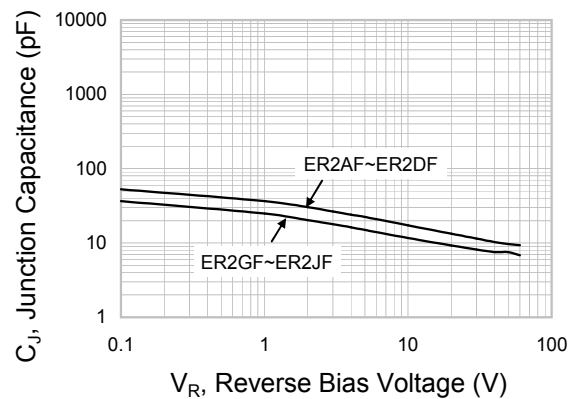
NOTES : 1. Mounted on a FR4 PCB, single-sided copper, with 48cm<sup>2</sup> copper pad area  
2. Mounted on a FR4 PCB, single-sided copper, mini pad.

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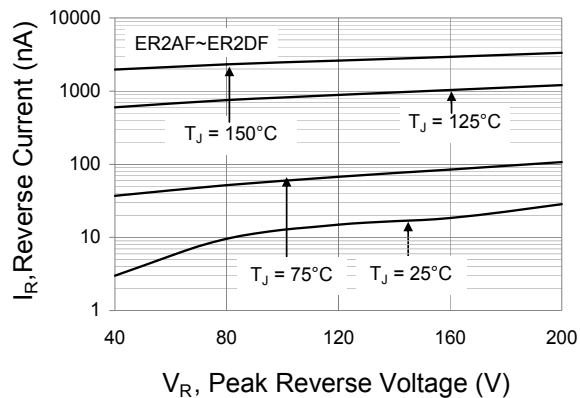
## RATING AND CHARACTERISTIC CURVES



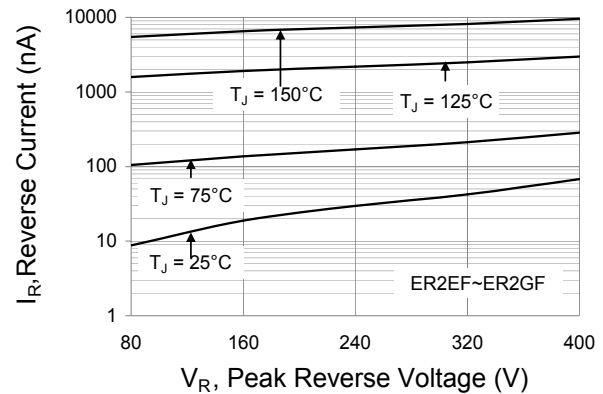
**Fig.1 Forward Current Derating Curve**



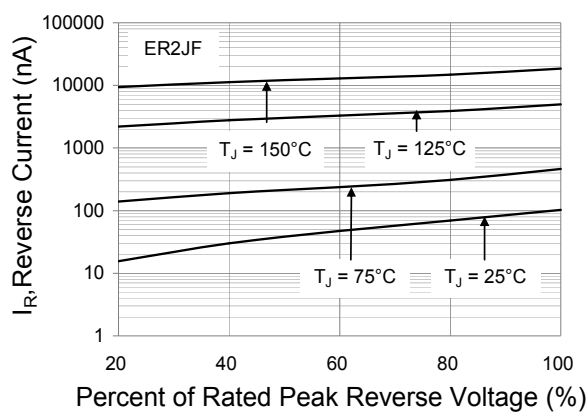
**Fig.2 Typical Junction Capacitance**



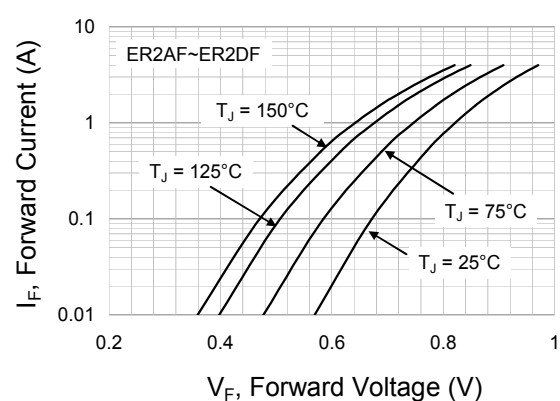
**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Reverse Characteristics**



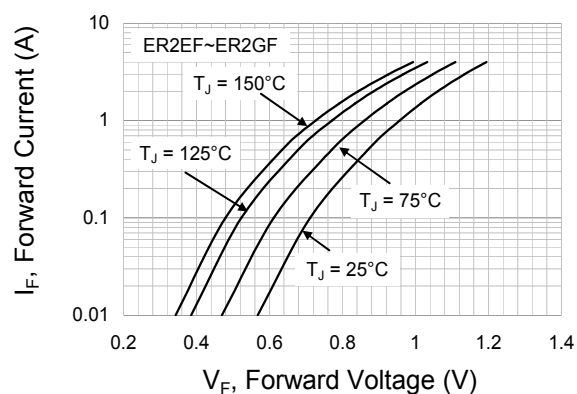
**Fig.5 Typical Reverse Characteristics**



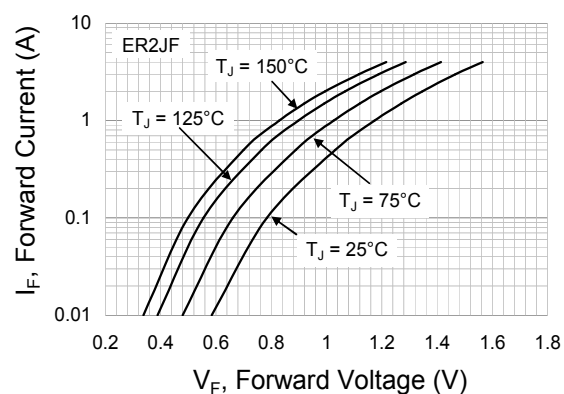
**Fig.6 Typical Forward Characteristics**

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### RATING AND CHARACTERISTIC CURVES



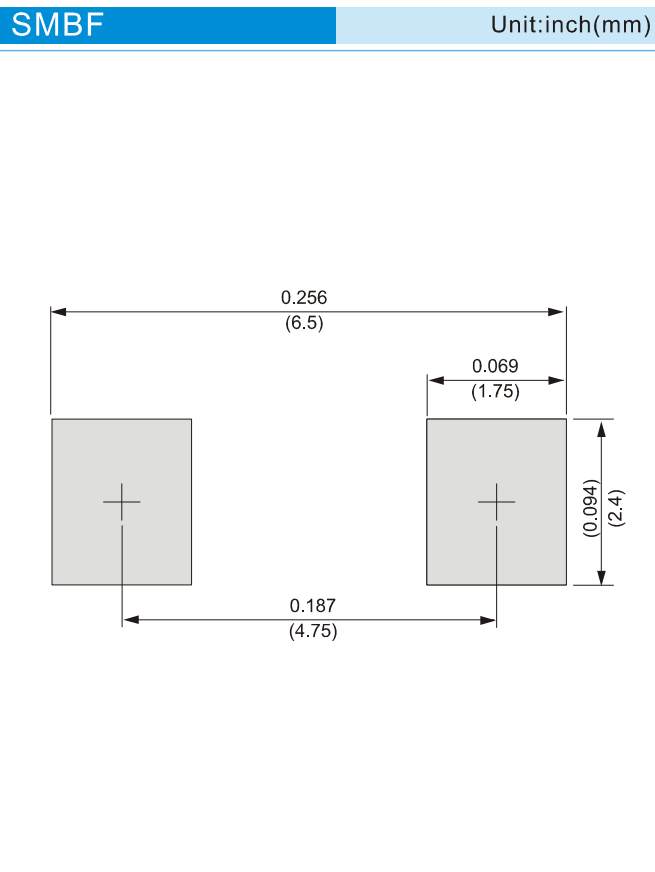
**Fig.7 Typical Forward Characteristics**



**Fig.8 Typical Forward Characteristics**

## ER2AF SERIES

### MOUNTING PAD LAYOUT



### ORDER INFORMATION

- Packing information  
T/R - 5K per 13" plastic Reel

## ER2AF\_R2\_00001

## Packing type means T/R

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