



# ERT3AAF SERIES

## SURFACE MOUNT SUPERFAST RECTIFIER

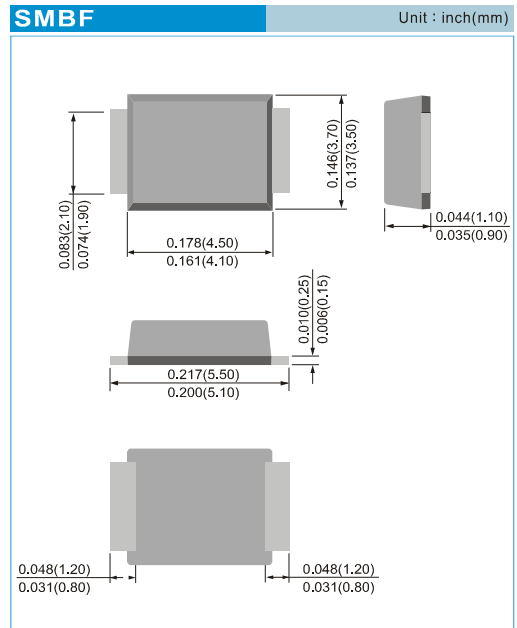
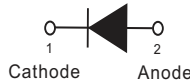
**VOLTAGE** 50~400 Volt **CURRENT** 3 Ampere

### 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-0
- Glass passivated junction
- Ultra thin profile package for space constrained utilization
- Package suitable for automated handling
- Hyperfast recovery time
- 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



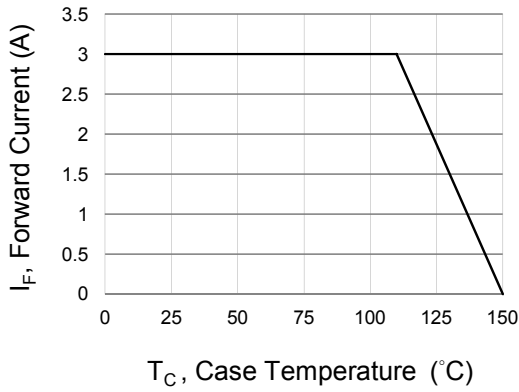
### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	ERT3AAF	ERT3BAF	ERT3CAF	ERT3DAF	ERT3EAF	ERT3GAF	UNITS
Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	150	200	300	400	V
RMS Voltage	V <sub>RMS</sub>	35	70	105	140	210	280	V
DC Blocking Voltage	V <sub>R</sub>	50	100	150	200	300	400	V
Average Forward Current	I <sub>F(AV)</sub>	3						A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	75						A
Forward Voltage at 3A	V <sub>F</sub>	0.95				1.25		V
DC Reverse Current at Rated DC Blocking Voltage T <sub>J</sub> =25°C	I <sub>R</sub>	1						μA
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	50				40		pF
Typical Thermal Resistance ,Junction to Lead (Note 3) Junction to Ambient (Note 4)	R <sub>θJL</sub> R <sub>θJA</sub>					20 135		°C / W
Reverse Recovery Time (Note 2)	T <sub>rr</sub>	25						ns
Operating Junction Temperature and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150						°C

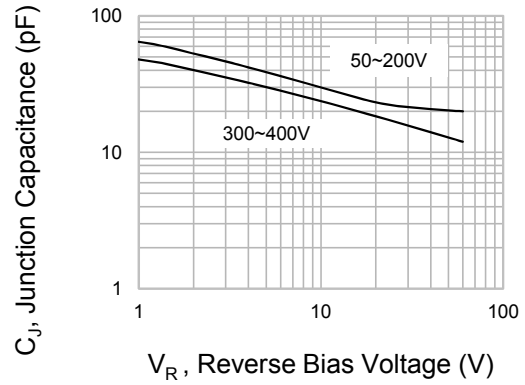
NOTES:1. Measured at 1 MHz and Applied Reverse Voltage of 4 Volt.  
 2.Reverse Recovery Test Conditions: IF=0.5A, IR=1A, Recover to 0.25A.  
 3.Mounted on a FR4 PCB, single-sided copper, with 10cm\*10cm copper pad area  
 4.Mounted on a FR4 PCB, single-sided copper, mini pad.



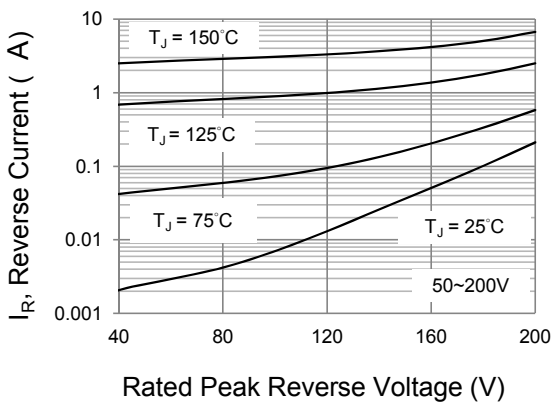
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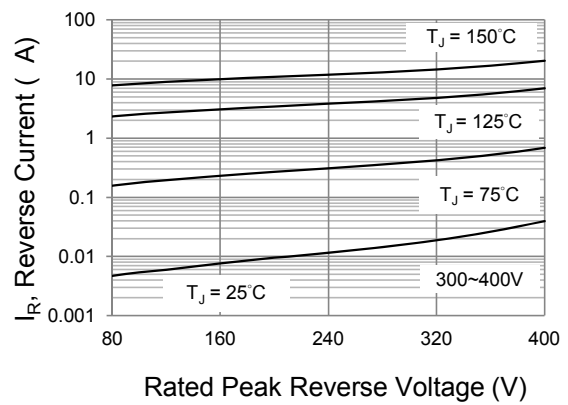
**Fig.1 Forward Current Derating Curve**



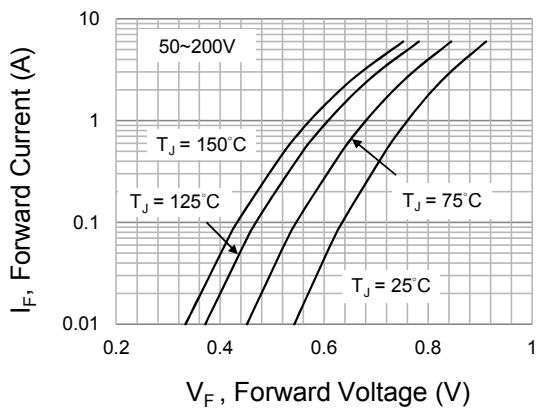
**Fig.2 Typical Junction Capacitance**



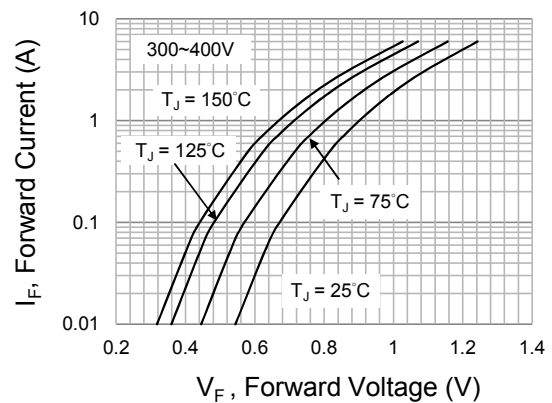
**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Reverse Characteristics**



**Fig.5 Typical Forward Characteristics**

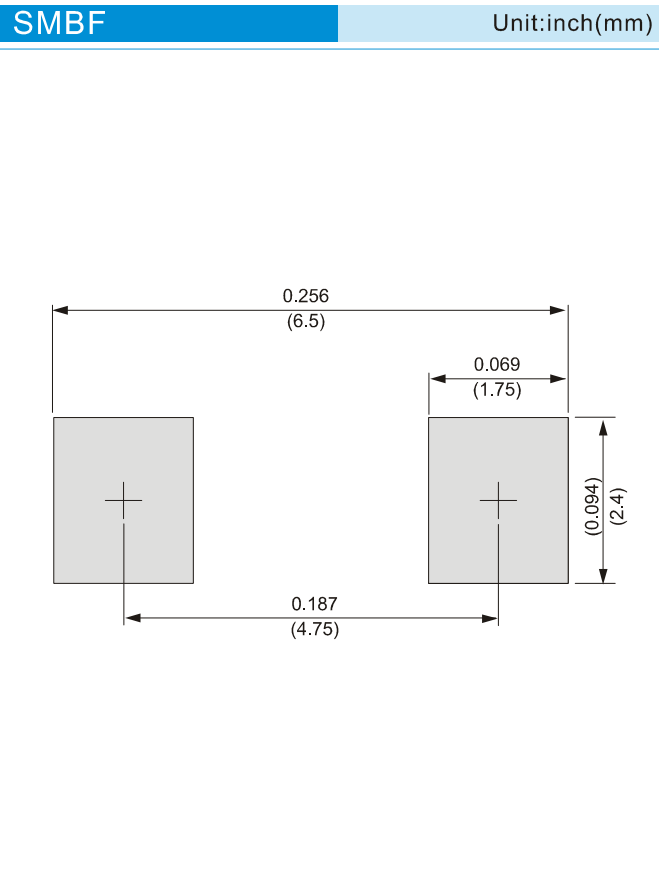


**Fig.6 Typical Forward Characteristics**



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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

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



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Part No\_packing code\_Version

ERT3AAF\_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)	<b>A</b>	N/A	<b>0</b>	<b>HF</b>	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	<b>RoHS</b>	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			



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