



#### SURFACE MOUNT SUPERFAST RECTIFIER

VOLTAGE 50~400 Volt

CURRENT

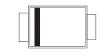
3 Ampere

#### **FEATURES**

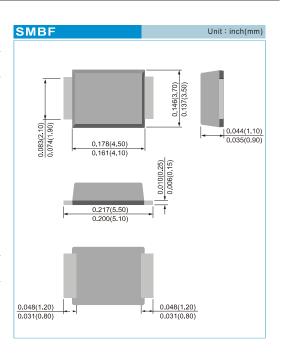
- For surface mounted applications in order to optimize board space
- High temperature metallurgically bonded-no compression
- · Easy pick and place
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- · Glass passivated junction
- Ultra thin profile package for space constrained 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 (TA=25°C unless otherwise noted)

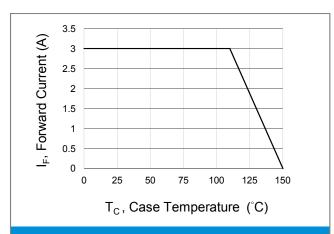
PARAMETER	SYMBOL	ERT3AAF	ERT3BAF	ERT3CAF	ERT3DAF	ERT3EAF	ERT3GAF	UNITS
Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	150	200	300	400	٧
RMS Voltage	V <sub>RMS</sub>	35	70	105	140	210	280	٧
DC Blocking Voltage	V <sub>R</sub>	50	100	150	200	300	400	٧
Average Forward Current	I <sub>F(AV)</sub>	3					Α	
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	75						Α
Forward Voltage at 3A	V <sub>F</sub>	0.95 1.25			25	٧		
DC Reverse Current at Rated DC Blocking Voltage  T <sub>J</sub> =25°C	I <sub>R</sub>	1				μΑ		
Typical Junction Capacitance (Note 1)	C¹	50 40			10	pF		
Typical Thermal Resistance ,Junction to Lead (Note 3) Junction to Ambient (Note 4)	$R_{_{\theta JL}} R_{_{\theta JA}}$	20 135				°C / W		
Reverse Recovery Time (Note 2)	T <sub>rr</sub>	25				ns		
Operating Junction Temperature and Storage Temperature Range		-55 to +150						°C

NOTES:1.Measured at 1 MHz and Applied Reverse Voltage of 4 Volt.

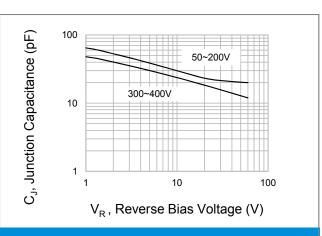
- 2.Reverse Recovery Test Conditions: IF=0.5A, IR=1A, Recover to 0.25A.
- 3. Mounted on a FR4 PCB, single-sided copper, with 10cm\*10cm copper pad area
- 4. Mounted on a FR4 PCB, single-sided copper, mini pad.







**Fig.1 Forward Current Derating Curve** 



**Fig.2 Typical Junction Capacitance** 

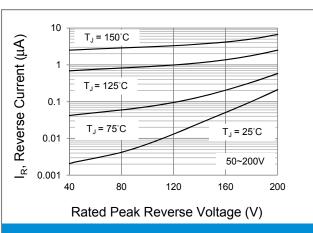
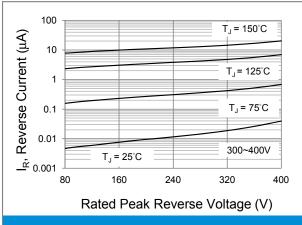
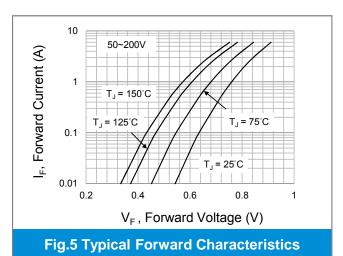
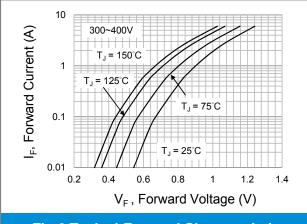


Fig.3 Typical Reverse Characteristics



**Fig.4 Typical Reverse Characteristics** 



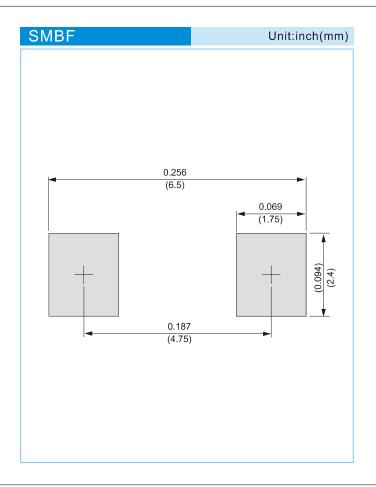


**Fig.6 Typical Forward Characteristics** 





#### **MOUNTING PAD LAYOUT**



#### **ORDER INFORMATION**

Packing information

T/R - 5K per 13" plastic Reel





### Part No\_packing code\_Version

ERT3AAF\_R2\_00001

# For example : RB500V-40\_R2\_00001 Part No. Serial number Version code means HF Packing size code means 13" Packing type means T/R

Packing Code XX					Version Code XXXXX			
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)	Α	N/A	0	HF	0	serial number		
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number		
Bulk Packing (B/P)	В	13"	2					
Tube Packing (T/P)	Т	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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