



#### SURFACE MOUNT SUPERFAST RECTIFIER

VOLTAGE 50~400 Volt

CURRENT

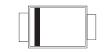
3 Ampere

#### **FEATURES**

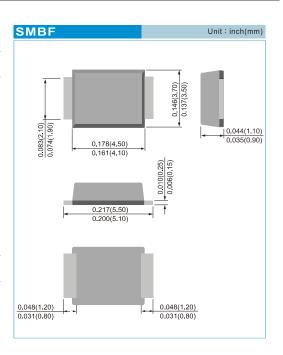
- For surface mounted applications in order to optimize board space
- High temperature metallurgically bonded-no compression
- · Easy pick and place
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- · Glass passivated junction
- Ultra thin profile package for space constrained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

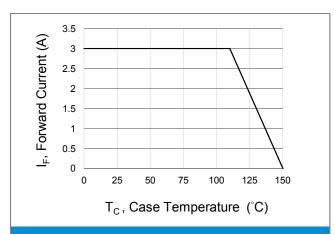
PARAMETER	SYMBOL	ERT3AAF	ERT3BAF	ERT3CAF	ERT3DAF	ERT3EAF	ERT3GAF	UNITS
Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	150	200	300	400	٧
RMS Voltage	V <sub>RMS</sub>	35	70	105	140	210	280	٧
DC Blocking Voltage	V <sub>R</sub>	50	100	150	200	300	400	٧
Average Forward Current	I <sub>F(AV)</sub>	3					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.

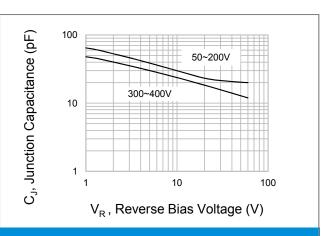
- 2.Reverse Recovery Test Conditions: IF=0.5A, IR=1A, Recover to 0.25A.
- 3. Mounted on a FR4 PCB, single-sided copper, with 10cm\*10cm copper pad area
- 4. Mounted on a FR4 PCB, single-sided copper, mini pad.







**Fig.1 Forward Current Derating Curve** 



**Fig.2 Typical Junction Capacitance** 

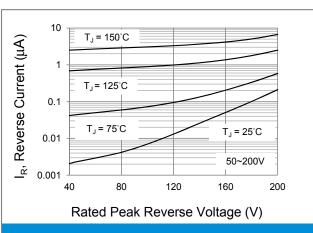
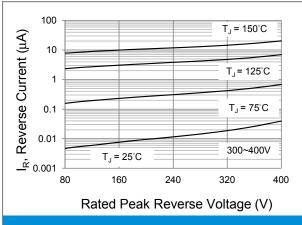
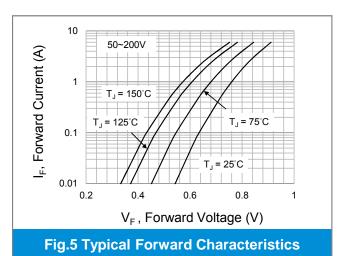
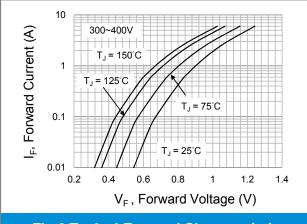


Fig.3 Typical Reverse Characteristics



**Fig.4 Typical Reverse Characteristics** 



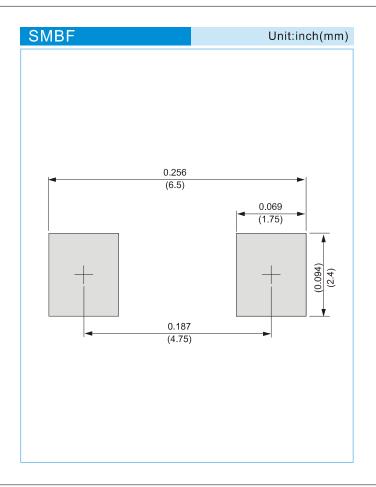


**Fig.6 Typical Forward Characteristics** 





#### **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					





## **Disclaimer**

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties
  of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation.
   Customers are responsible in comprehending the suitable use in particular applications.
   Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.

## **Mouser Electronics**

**Authorized Distributor** 

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

## Panjit:

ERT3GAF\_R1\_00001 ERT3GAF\_R2\_00001