



#### SURFACE MOUNT SUPERFAST RECTIFIER

VOLTAGE 50

50~600 Volt

CURRENT

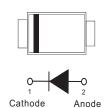
2 Ampere

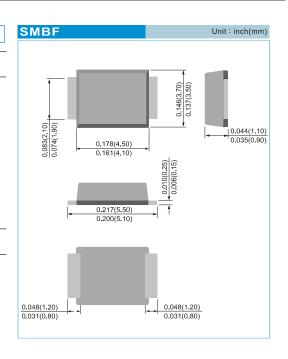
#### **FEATURES**

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

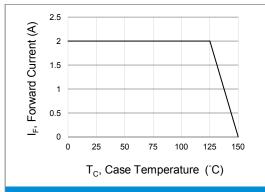
PARAMETER	SYMBOL	ERT2AF	ERT2BF	ERT2CF	ERT2DF	ERT2EF	ERT2GF	ERT2JF	UNITS
Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	150	200	300	400	600	V
RMS Voltage	V <sub>RMS</sub>	35	70	105	140	210	280	420	V
DC Blocking Voltage	V <sub>R</sub>	50	100	150	200	300	400	600	V
Average Forward Current	I <sub>F(AV)</sub>	2							А
Peak Forward Surge Current : 8.3ms single half sine- wave superimposed on rated load	I <sub>FSM</sub>	50							Α
Forward Voltage at 2A	V <sub>F</sub>	0.95 1.25				25	1.7	V	
DC Reverse Current at Rated DC Blocking Voltage  T <sub>J</sub> =25°C	I <sub>R</sub>	1							μА
Typical Junction Capacitance (Note 1)	C	35 25				15	pF		
Typical Thermal Resistance ,Junction to Lead (Note 3)  Junction to Ambient (Note 4)	R <sub>ejl</sub> R <sub>eja</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

 ${\tt NOTES:1.Measured\ at\ 1\ MHz\ and\ Applied\ Reverse\ Voltage\ of\ 4\ Volt.}$ 

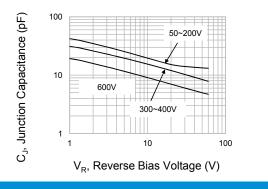
- 2.Reverse Re covery Test Conditions: IF=0.5A, IR=1A, Recover to 0.25A.
- 3.Mounted on a FR4 PCB, single-sided copper, with <math>10cm\*10cm copper pad area
- 4. Mounted on a FR4 PCB, single-sided copper, mini pad.







**Fig.1 Forward Current Derating Curve** 



**Fig.2 Typical Junction Capacitance** 

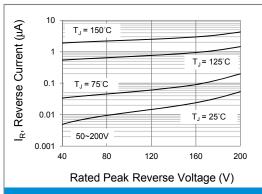
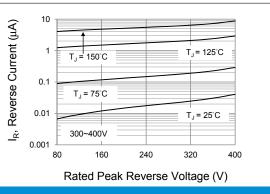
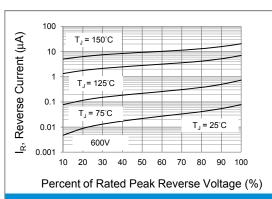


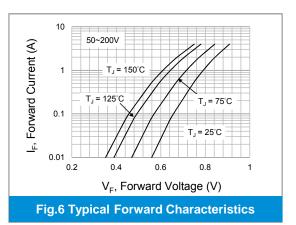
Fig.3 Typical Reverse Characteristics

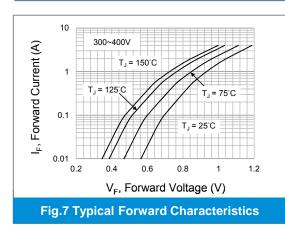


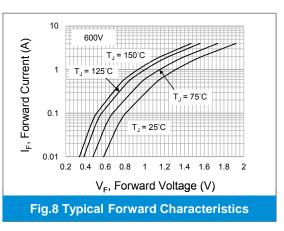
**Fig.4 Typical Reverse Characteristics** 



**Fig.5 Typical Reverse Characteristics** 



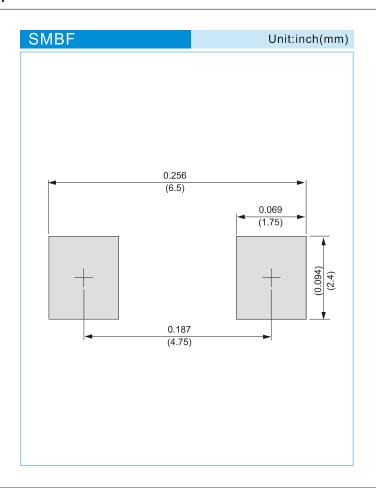








#### **MOUNTING PAD LAYOUT**



#### **ORDER INFORMATION**

Packing information

T/R - 5K per 13" plastic Reel





#### Part No\_packing code\_Version

ERT2AF\_R2\_00001

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

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

Packing type means T/R





### **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:

ERT2GF\_R1\_00001 ERT2GF\_R2\_00001