



#### SURFACE MOUNT SUPERFAST RECTIFIER

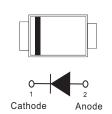
VOLTAGE 50~600 Volt CURRENT 2 Ampere

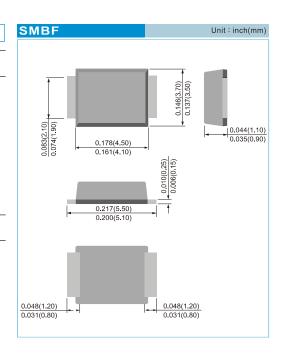
#### **FEATURES**

- 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
- 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						А	
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load		I <sub>FSM</sub>	50						А	
Forward Voltage at 2A		V <sub>F</sub>	0.95			1.	1.25		V	
DC Reverse Current at Rated DC Blocking Voltage	T <sub>J</sub> =25°C	I <sub>R</sub>	1				μА			
Typical Junction capacitance	V <sub>R</sub> =4V,f=1MHz	C	30 20			pF				
Typical Thermal Resistance ,Junction to Lead (Note 1)  Junction to Ambient (Note 2)		R <sub>eJL</sub> R <sub>eJA</sub>	18 135						°C / W	
Reverse Recovery Time ( $I_F = 0.5A$ , $I_R = 1A$ , $I_R = 0.25A$ )		T <sub>rr</sub>	35						ns	
Operating Junction Temperature and Storage Temperature Range		$T_J, T_{STG}$	-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**

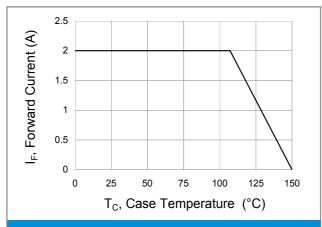
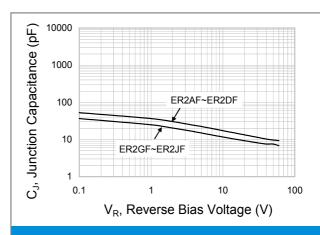


Fig.1 Forward Current Derating Curve



**Fig.2 Typical Junction Capacitance** 

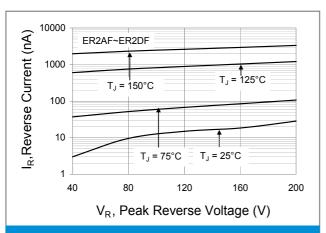


Fig.3 Typical Reverse Characteristics

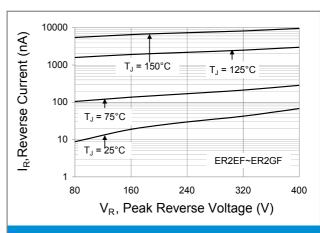


Fig.4 Typical Reverse Characteristics

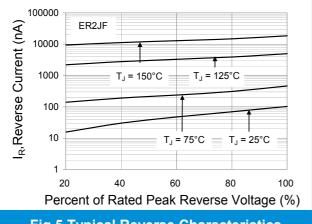
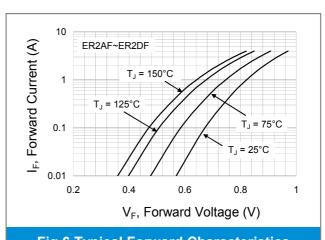


Fig.5 Typical Reverse Characteristics

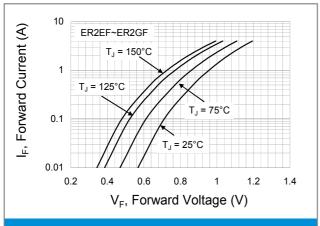


**Fig.6 Typical Forward Characteristics** 

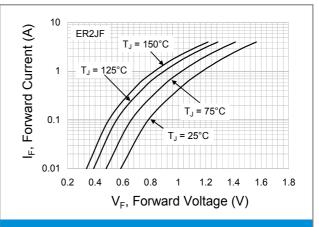




### **RATING AND CHARACTERISTIC CURVES**



**Fig.7 Typical Forward Characteristics** 

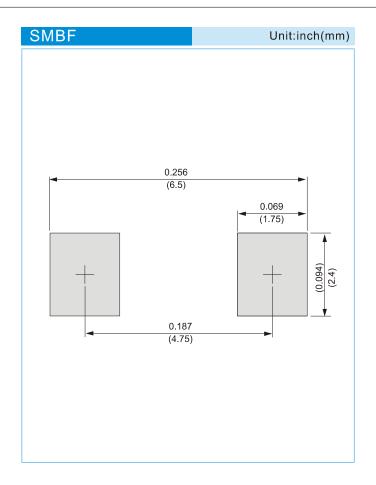


**Fig.8 Typical Forward Characteristics** 





#### MOUNTING PAD LAYOUT



#### ORDER INFORMATION

· Packing information

T/R - 5K per 13" plastic Reel





## Part No\_packing code\_Version

ER2AF\_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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