



ER2AF SERIES

SURFACE MOUNT SUPERFAST RECTIFIER

VOLTAGE 50~600 Volt **CURRENT** 2 Ampere

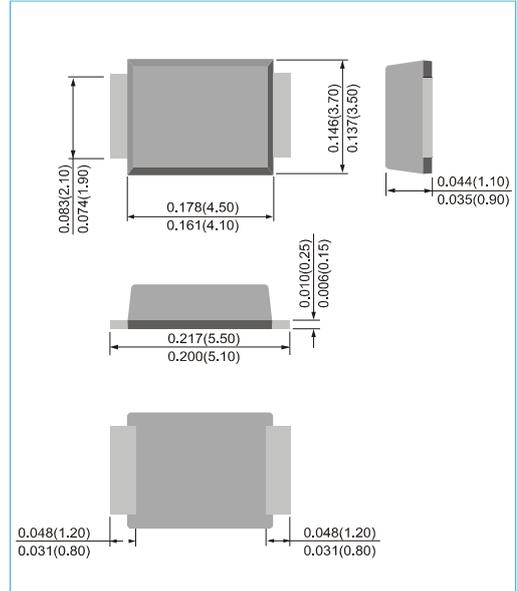
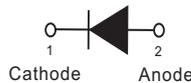
SMBF Unit : inch(mm)

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_{RRM}	50	100	150	200	300	400	600	V	
RMS Voltage	V_{RMS}	35	70	105	140	210	280	420	V	
DC Blocking Voltage	V_R	50	100	150	200	300	400	600	V	
Average Forward Current	$I_{F(AV)}$	2							A	
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	50							A	
Forward Voltage at 2A	V_F	0.95			1.25		1.7		V	
DC Reverse Current at Rated DC Blocking Voltage $T_j=25^\circ\text{C}$	I_R	1							μA	
Typical Junction capacitance $V_R=4\text{V}, f=1\text{MHz}$	C_j	30			20			pF		
Typical Thermal Resistance , Junction to Lead (Note 1) Junction to Ambient (Note 2)	$R_{\theta JL}$ $R_{\theta JA}$	18				135				$^\circ\text{C} / \text{W}$
Reverse Recovery Time ($I_F=0.5\text{A}, I_R=1\text{A}, I_{tr}=0.25\text{A}$)	T_{rr}	35							ns	
Operating Junction Temperature and Storage Temperature Range	T_j, T_{STG}	-55 to +150							$^\circ\text{C}$	

NOTES : 1. Mounted on a FR4 PCB, single-sided copper, with 48cm² copper pad area
2. Mounted on a FR4 PCB, single-sided copper, mini pad.



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RATING AND CHARACTERISTIC CURVES

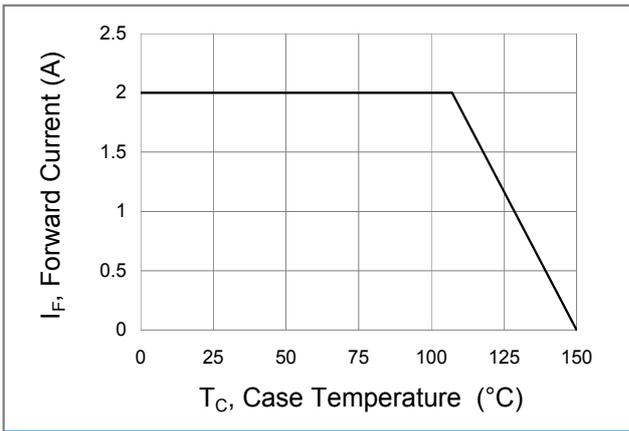


Fig.1 Forward Current Derating Curve

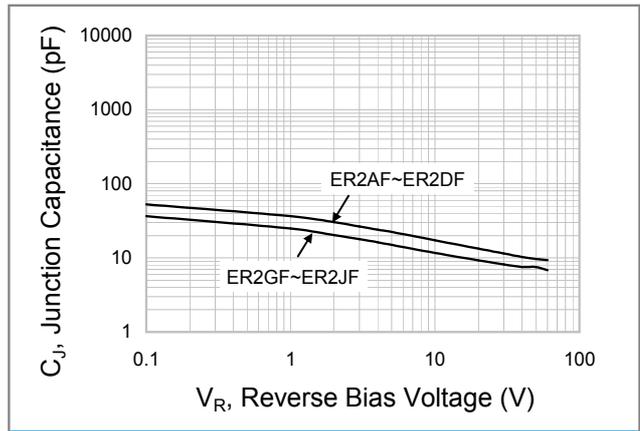


Fig.2 Typical Junction Capacitance

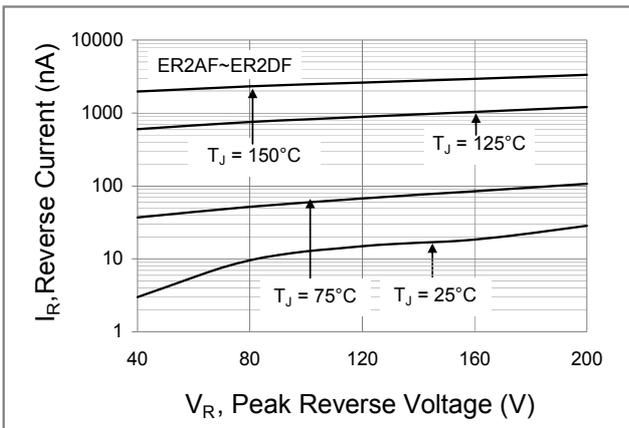


Fig.3 Typical Reverse Characteristics

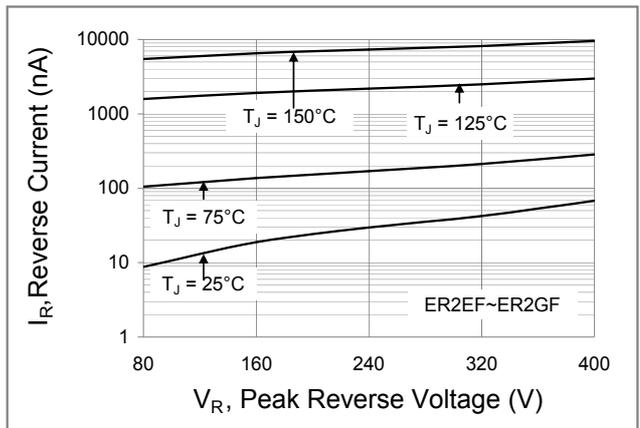


Fig.4 Typical Reverse Characteristics

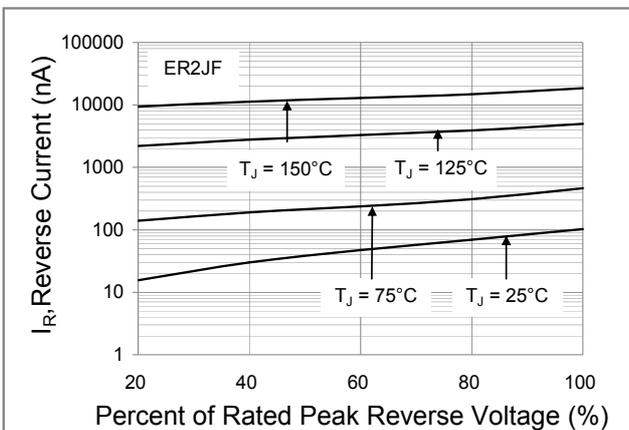


Fig.5 Typical Reverse Characteristics

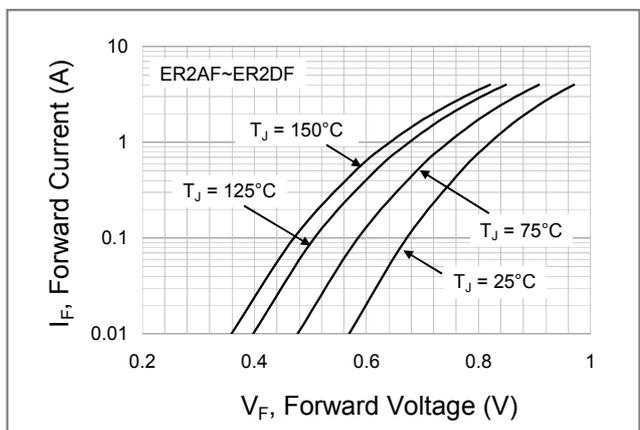


Fig.6 Typical Forward Characteristics



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RATING AND CHARACTERISTIC CURVES

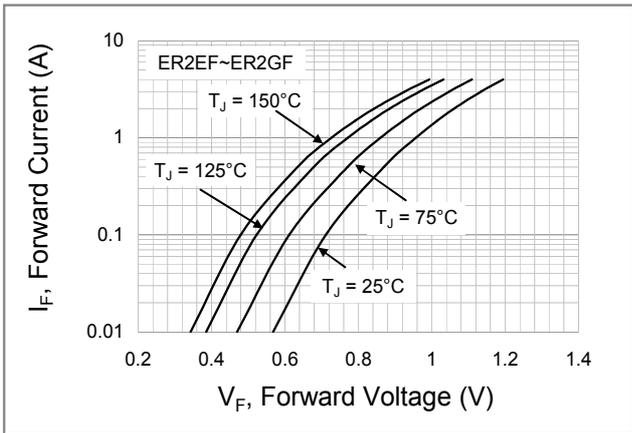


Fig.7 Typical Forward Characteristics

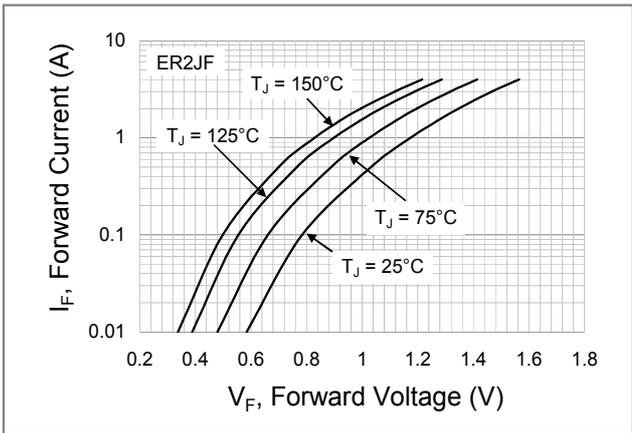
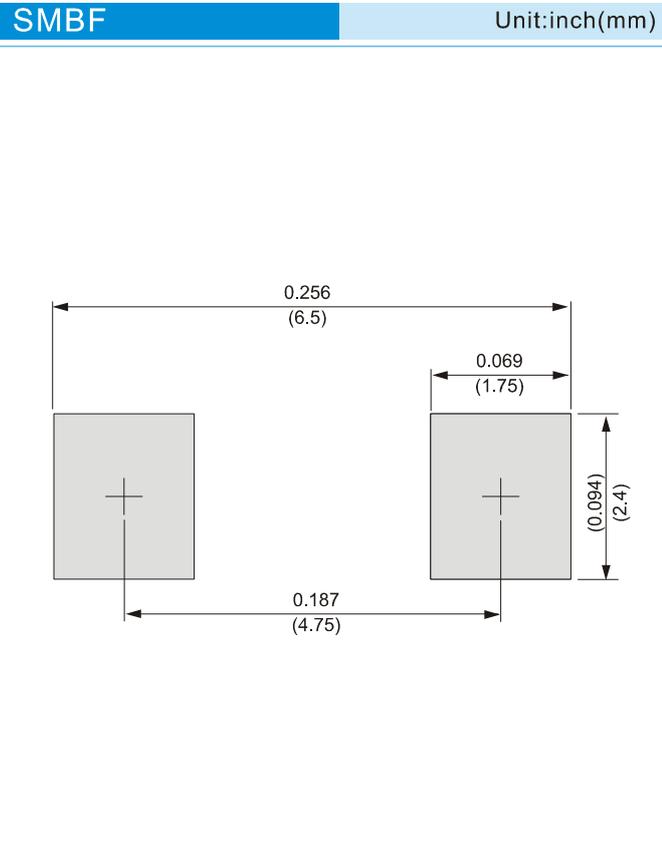


Fig.8 Typical Forward Characteristics



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MOUNTING PAD LAYOUT



ORDER INFORMATION

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



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