



# ER2AF SERIES

## SURFACE MOUNT SUPERFAST RECTIFIER

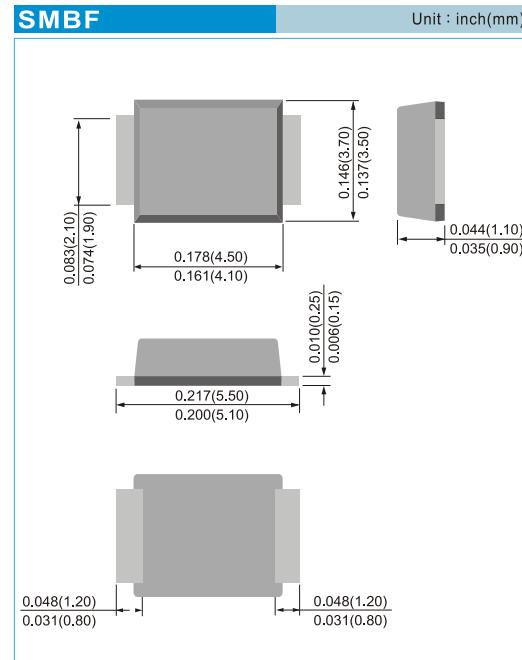
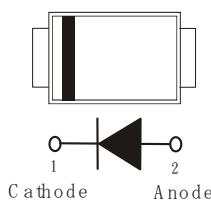
**VOLTAGE** 50-600 Volts    **CURRENT** 2 Amperes

### FEATURES

- For surface mounted applications
- High temperature metallurgically bonded-no compression
- Built-in strain relief
- Easy pick and place
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Glass passivated junction
- Lead free in comply with EU RoHS 2002/95/EC directives.
- 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 ( $T_A=25^\circ\text{C}$ 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	$I_{F(AV)}$					2.0			A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$					50			A
Forward Voltage at 2.0A	$V_F$			0.95		1.25	1.7		V
DC Reverse Current at Rated DC Blocking Voltage $T_J=25^\circ\text{C}$	$I_R$				1				$\mu\text{A}$
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)	$R_{0JL}$ $R_{0JA}$			18	135				$^\circ\text{C} / \text{W}$
Reverse Recovery Time ( $I_F=0.5\text{A}$ , $I_R=1.0\text{A}$ , $I_{rr}=0.25\text{A}$ )	$T_{rr}$			35					ns
Operating Junction Temperature and Storage Temperature Range	$T_J, T_{STG}$		-55 to +150						$^\circ\text{C}$

NOTES : 1. Mounted on an FR4 PCB, single-sided copper, with  $48\text{cm}^2$  copper pad area  
2. Mounted on an FR4 PCB, single-sided copper, mini pad.



## ER2AF SERIES

### RATING AND CHARACTERISTIC CURVES

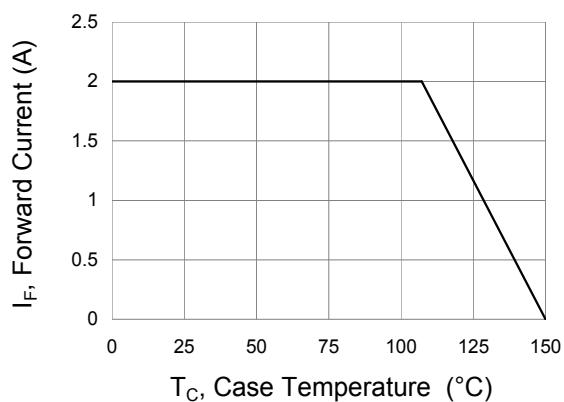


Fig.1 Forward Current Derating Curve

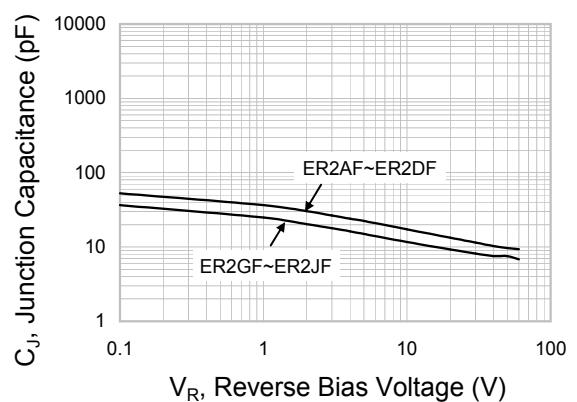


Fig.2 Typical Junction Capacitance

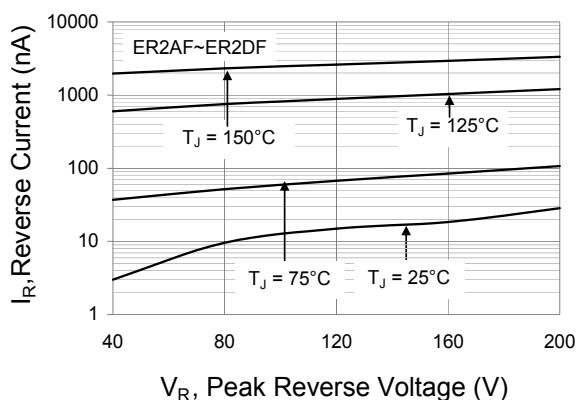


Fig.3 Typical Reverse Characteristics

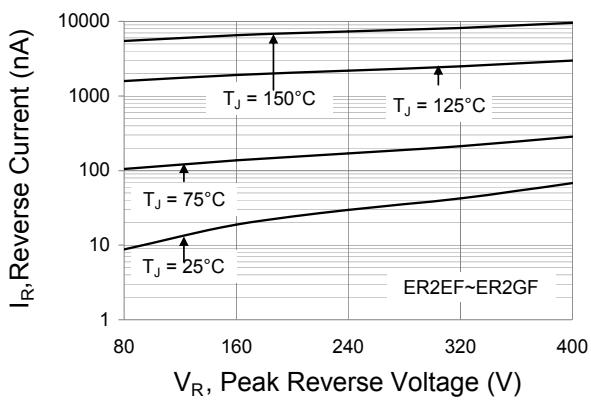


Fig.4 Typical Reverse Characteristics

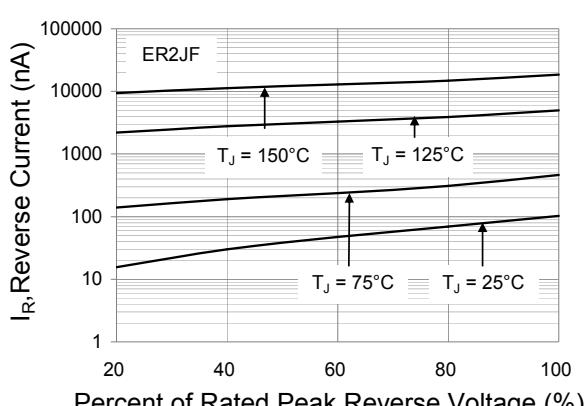


Fig.5 Typical Reverse Characteristics

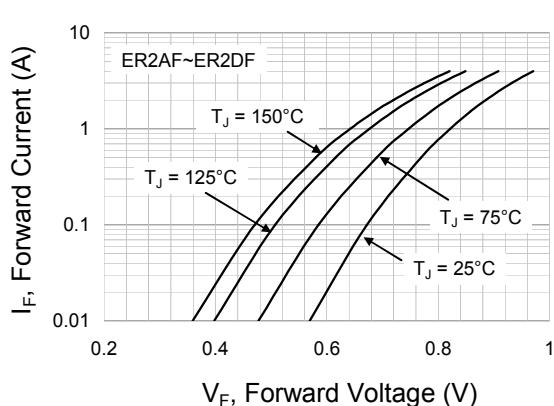


Fig.6 Typical Forward Characteristics



## ER1AF SERIES

### RATING AND CHARACTERISTIC CURVES

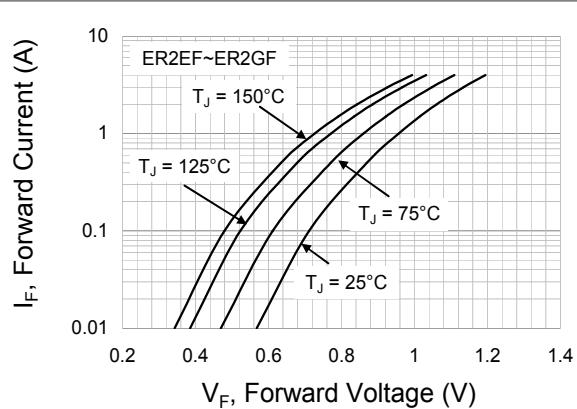


Fig.7 Typical Forward Characteristics

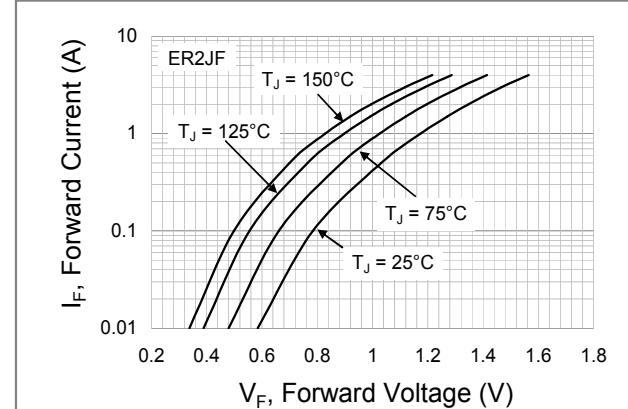
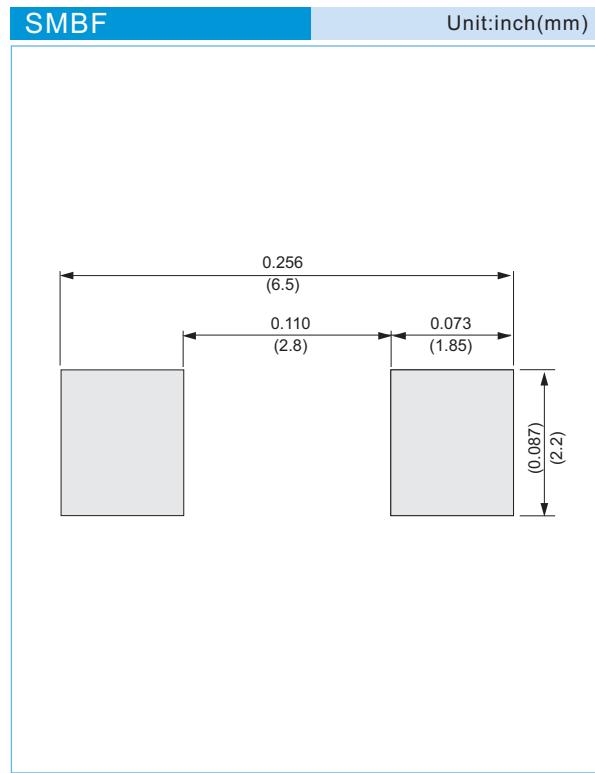


Fig.8 Typical Forward Characteristics



# ER2AF SERIES

## MOUNTING PAD LAYOUT



## ORDER INFORMATION

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

## LEGAL STATEMENT

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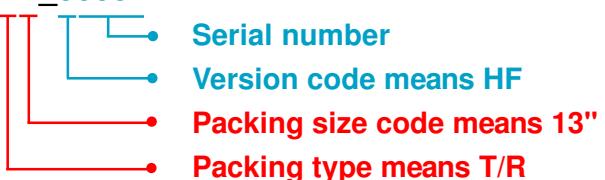


## ER2AF SERIES

For example :

**RB500V-40\_R2\_00001**

Part No.



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
T/B	A	N/A	0	HF	0	serial number
T/R	R	7"	1	RoHS	1	serial number
B/P	B	13"	2			
T/P	T	26mm	X			
TRR	S	52mm	Y			
TRL	L	PBCU	U			
FORMING	F	PBCD	D			

Part No\_packing code\_Version

ER2AF\_R1\_00001

ER2AF\_R2\_00001