



FR2AF SERIES

SURFACE MOUNT FAST RECOVERY RECTIFIER

VOLTAGE 50 to 600 Volts **CURRENT** 2.0 Ampere

SMBF

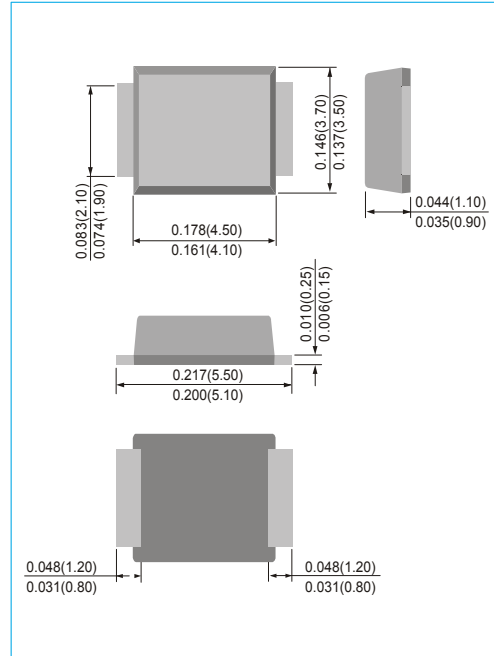
Unit : inch(mm)

FEATURES

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Fast Recovery times for high efficiency
- 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

MECHANICAL DATA

- Case: SMBF molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0018 ounce, 0.05 grams
- Polarity: Color band denotes cathode end



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

PARAMETER	SYMBOL	FR2AF	FR2BF	FR2DF	FR2GF	FR2JF	UNITS	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	V	
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	V	
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	V	
Maximum Average Forward Rectified Current	$I_{F(AV)}$	2.0						A
Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method)per diode	I_{FSM}	50						A
Maximum Forward Voltage at 2A	V_F	1.3						V
Maximum DC Reverse Current $T_j=25^\circ\text{C}$	I_R	1.0						μA
Typical Junction Capacitance (VR=4V f=1MHZ)	C_J	24				14		pF
Typical Thermal Resistance (Note 1) (Note 2)	$R_{\theta JL}$ $R_{\theta JA}$	20 135						$^\circ\text{C} / \text{W}$
Maximum Reverse Recovery Time	T_{rr}	150				250		nS
Operating Junction 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 48cm² copper pad area.
2. Mounted on an FR4 PCB, single-sided copper, mini pad.



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RATING AND CHARACTERISTIC CURVES

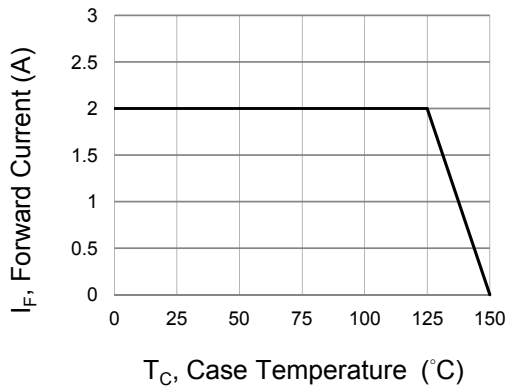


Fig.1 Forward Current Derating Curve

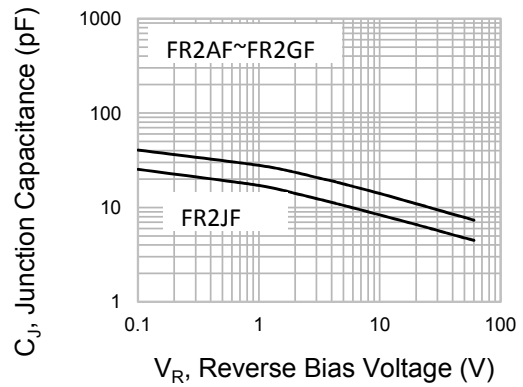


Fig.2 Typical Junction Capacitance

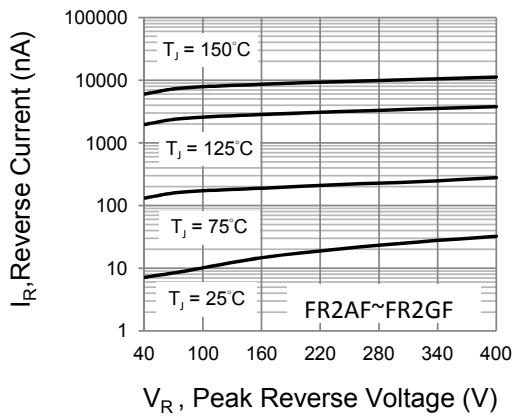


Fig.3 Typical Reverse Characteristics

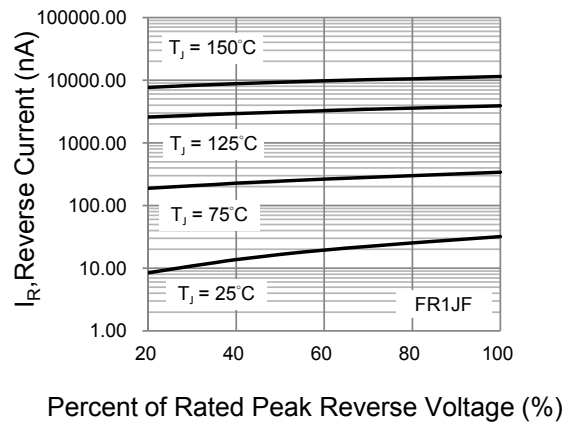


Fig.4 Typical Reverse Characteristics

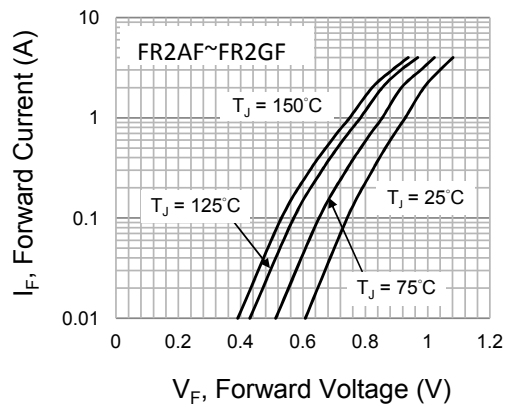


Fig.5 Typical Forward Characteristics

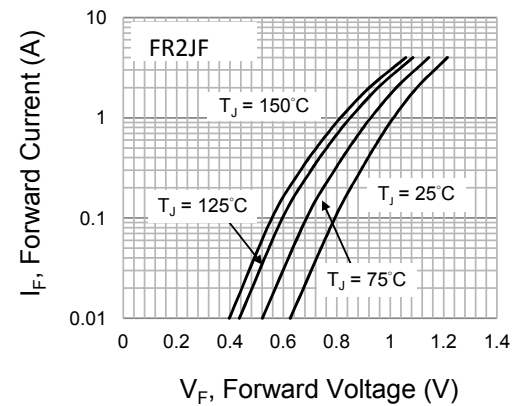
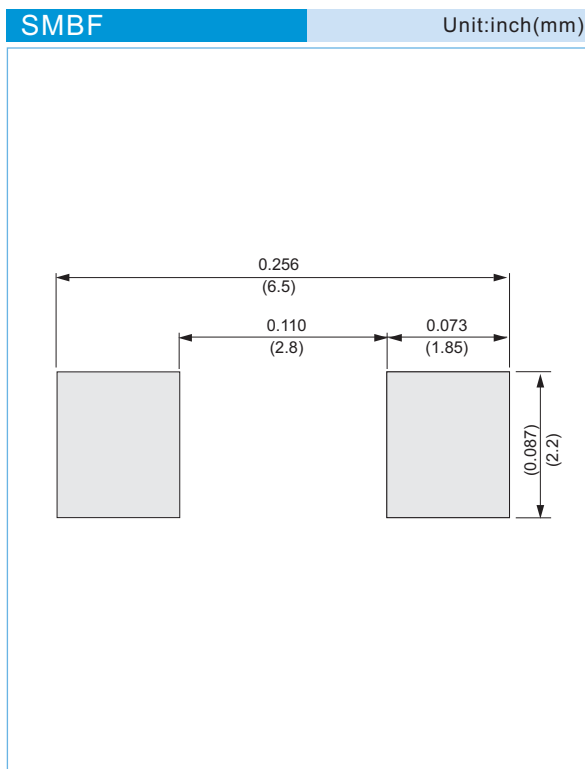


Fig.6 Typical Forward Characteristics



FR2AF SERIES

MOUNTING PAD LAYOUT



ORDER INFORMATION

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

LEGAL STATEMENT

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FR2AF SERIES

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th 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

FR2AF_R1_00001

FR2AF_R2_00001