FR2AF THRU FR2JF

SURFACE MOUNT FAST RECOVERY RECTIFIER
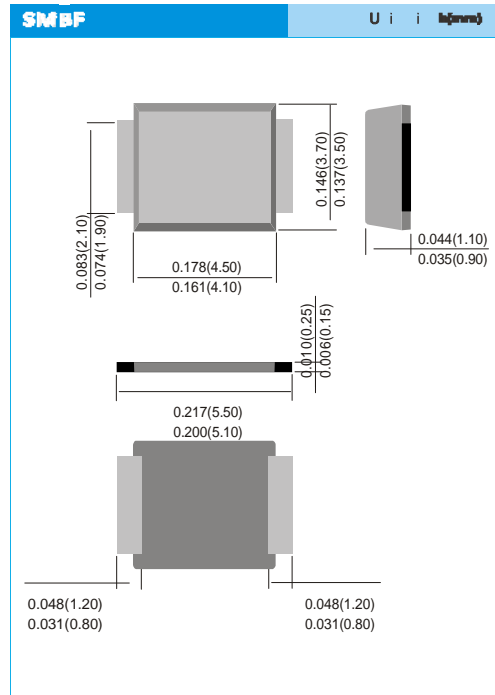
| VOLTAGE | 50 to 600 Volts | CURRENT | 2.0 Ampere |

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.

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

SMBF

0.146(3.70)
0.137(3.50)

0.044(1.10)
0.035(0.90)

0.083(2.10)
0.074(1.90)

0.178(4.50)
0.161(4.10)

ϕ10(0.25)
0.006(0.15)

0.217(5.50)
0.200(5.10)

0.048(1.20)
0.031(0.80)

0.048(1.20)
0.031(0.80)

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°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			^{O}C / W
Maximum Reverse Recovery Time	T_{rr}			150		250	nS
Operating Junction and Storage Temperature Range	T_J, T_{STG}			-55 to +150			^{O}C

NOTES : 1. Mounted on an FR4 PCB, single-sided copper, with 48cm^2 copper pad area.
2. Mounted on an FR4 PCB, single-sided copper, mini pad.
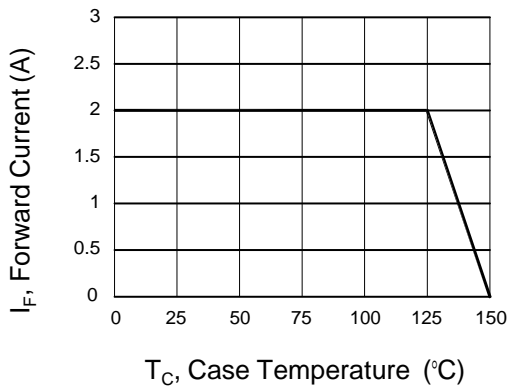
RATING AND CHARACTERISTIC CURVES

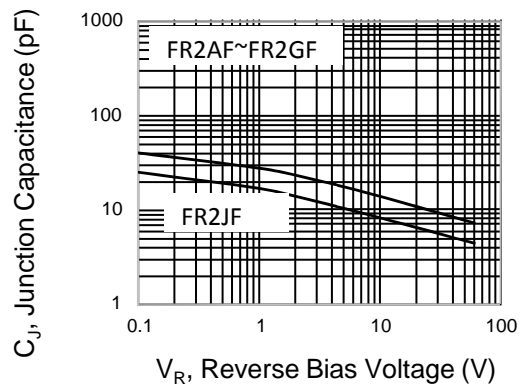

Fig.1 Forward Current Derating Curve
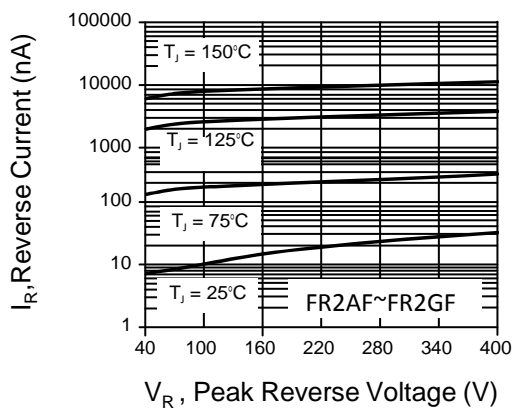

Fig.2 Typical Junction Capacitance

Fig.3 Typical Reverse Characteristics

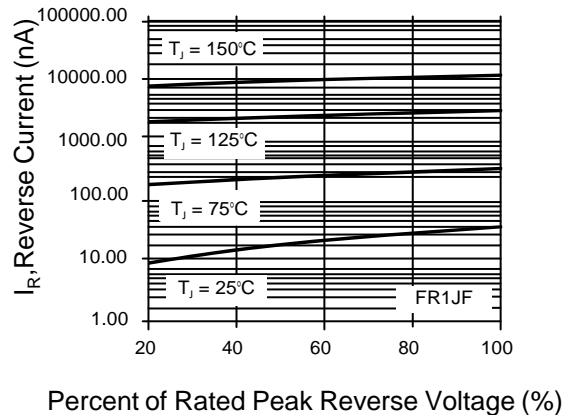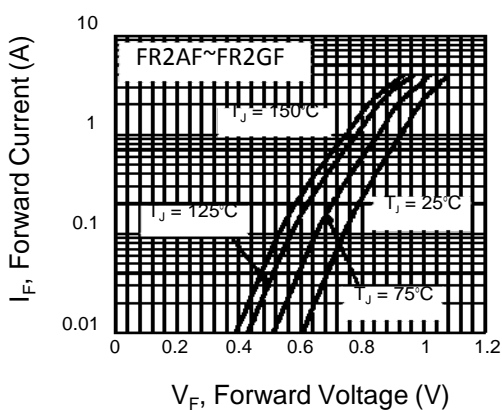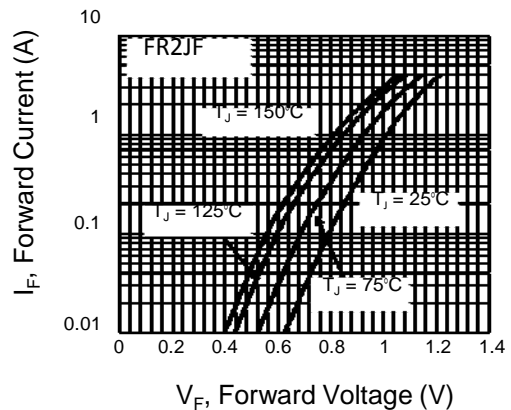**Fig.4 Typical Reverse Characteristics**

Fig.5 Typical Forward Characteristics

Fig.6 Typical Forward Characteristics