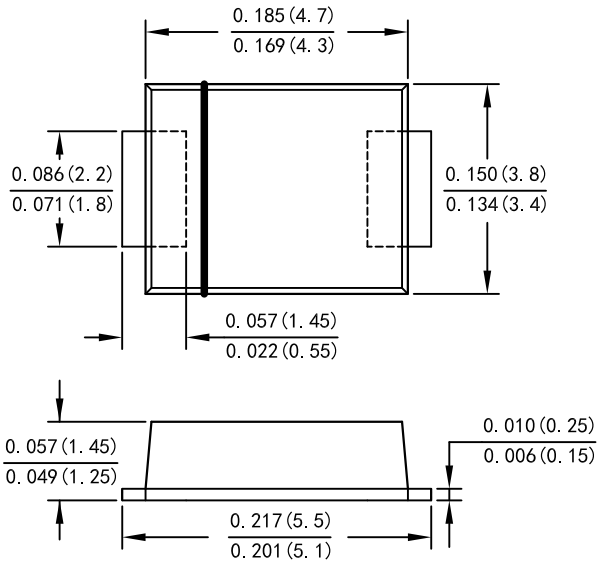
FR3AF THRU FR3MF

3.0AMP Surface Mount Fast Recovery Rectifiers

Features

- Deally Suited for Automatic Assembly
- Low Power Loss,High Efficiency
- For Use in Low Voltage Application
- Plastic Case Material has UL Flammability Classication Rating 94V-0

Case: SMBF



Dimensions in inches and (millimeters)

Mechanical Data

- Case: Molded plastic SMBF
- Terminals: Plated leads solderable per MIL-STD-750,Method 2026 guaranteed
- Polarity:Cathode Band or Cathode Notch
- Mounting Position: Any
- Making: Type Number

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified

Single phase,half wave,60Hz,resistive or inductive load

For capacitive load derate current by 20%

Type Number	SYMBOL	FR3AF	FR3BF	FR3DF	FR3GF	FR3JF	FR3KF	FR3MF	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Average Rectified Output Current @T_L =110 ℃	$I_{F(AV)}$	3.0							A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	110							A
Forward Voltage @IF=3.0A	V_{FM}	1.3							V
Peak Reverse Current @T_A =25 ℃	I_R	5.0							uA
At Rated DC Blocking Voltage @T_A =125 ℃		100							
I^2t Rating for Fusing (t < 8.3ms)	I^2t	50.2							A^2s
Maximum Reverse Recovery Time(Note 1)	Trr	150				250	500		ns
Typical Junction Capacitance (Note 2)	C_J	60				25			pF
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	110							℃/W
Operating Temperature Range	T_J	-55 to+150							℃
Storage Temperature Range	T_{STG}	-55 to +150							℃

Note:

1.Reverse Recovery Test Conditions:IF=0.5A,IR=1.0A,IRR=0.25A.

2. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

Fig. 1 Forward Current Derating Curve

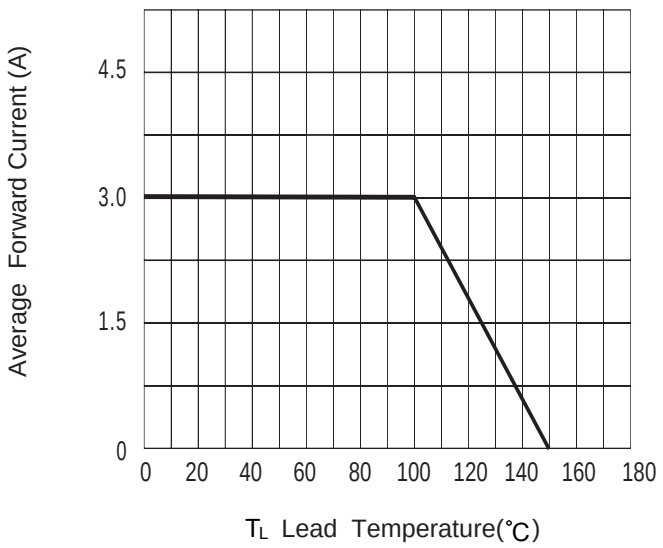


Fig. 2 Typ. Forward Characteristics

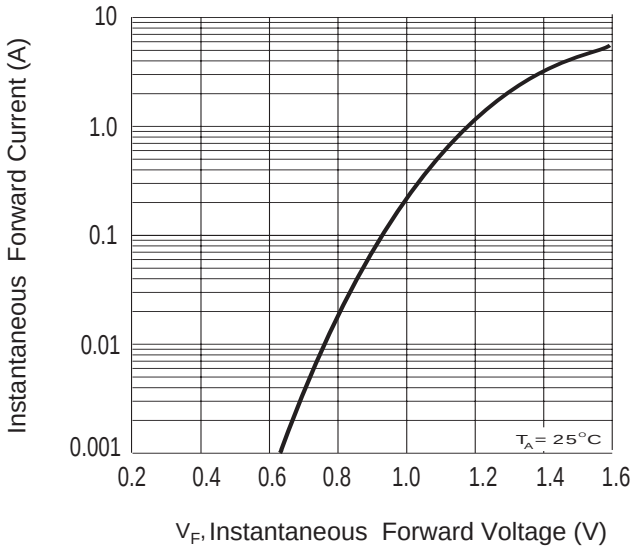


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

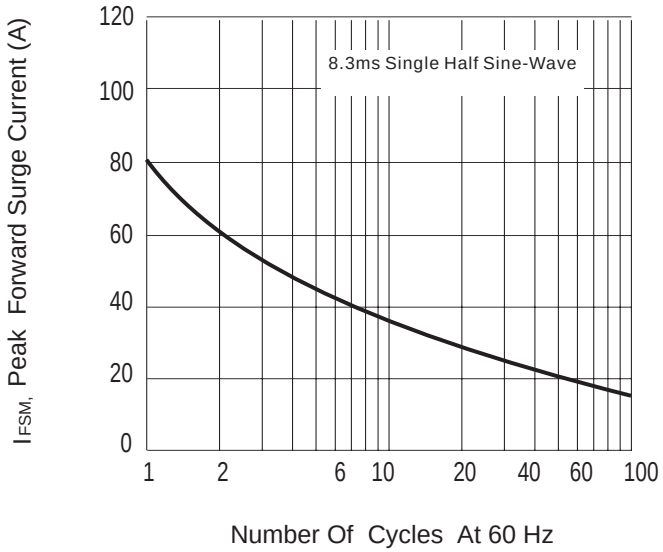


Fig.4 Typical Junction Capacitance

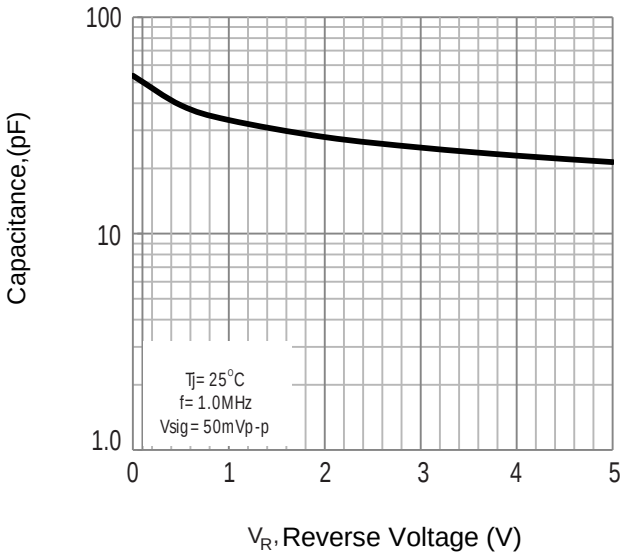


Fig.5 Typical Reverse Chracteristics

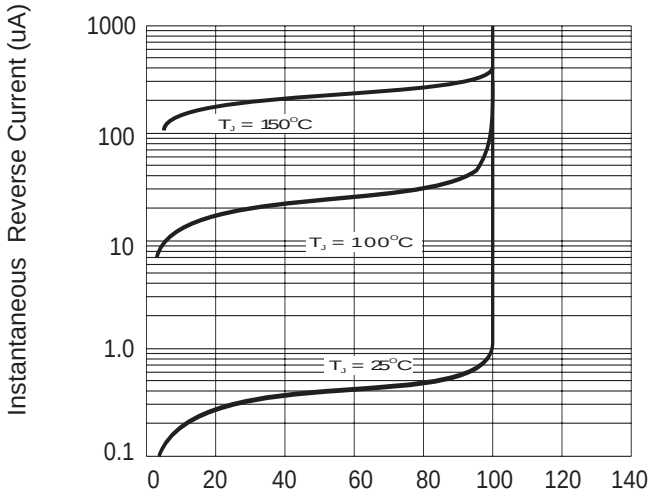
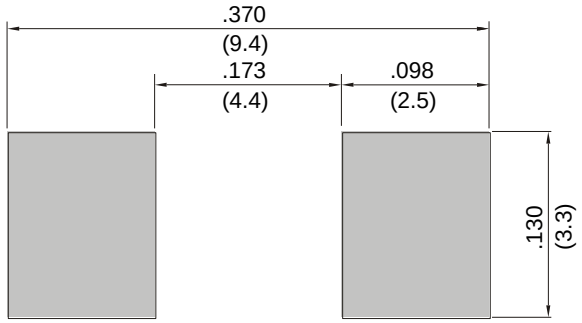


Fig.6 Mounting PAD Layout



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