



Features

- Average Forward Current: $I_{F(AV)}=3A$
- Polarity: Color band denotes cathode



SMAF



Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
MBR39AFC_R1_00001	SMAF	M39B3	3000

Maximum Ratings (Ta=25°C unless otherwise noted)

Parameter	Symbols	Limit	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Maximum RMS voltage	V_{RMS}	70	V
Maximum DC Blocking Voltage	V_{DC}	100	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	3.0	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	70	A
Max Instantaneous Forward Voltage at 3 A	V_F	0.85	V
Maximum DC Reverse Current at Rated DC Reverse Voltage	I_R	0.3 5	mA
Typical Junction Capacitance ¹⁾	C_j	160	pF
Typical Thermal Resistance ²⁾	$R_{\theta JA}$	40	°C/W
Operating Junction Temperature Range	T_j	-55 ~ +125	°C
Storage Temperature Range	T_{stg}	-55 ~ +150	°C

1) Measured at 1MHz and applied reverse voltage of 4 V D.C.

2) P.C.B. mounted with 0.2 X 0.2" (5 X 5 mm) copper pad areas.



Typical Characteristics

Fig.1 Forward Current Derating Curve

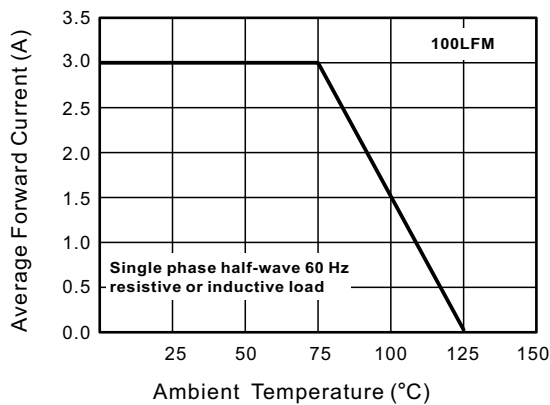


Fig.2 Typical Reverse Characteristics

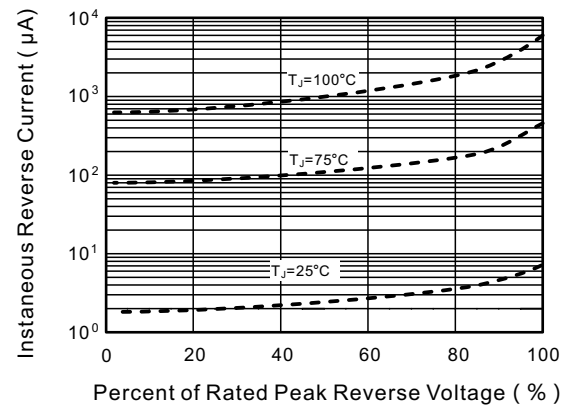


Fig.3 Typical Forward Characteristic

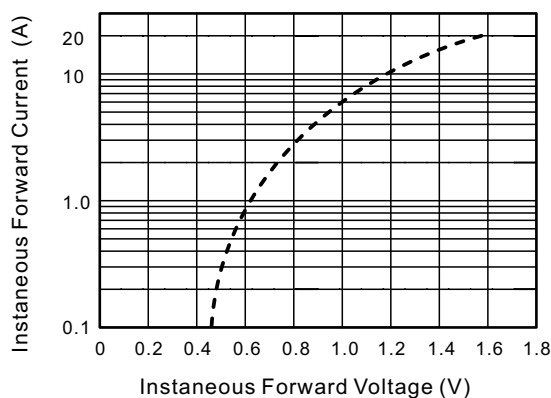


Fig.4 Typical Junction Capacitance

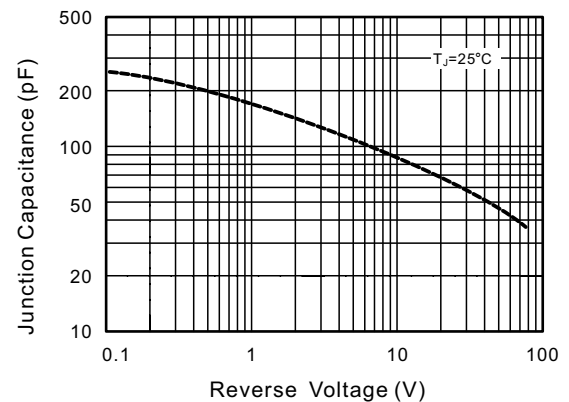


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

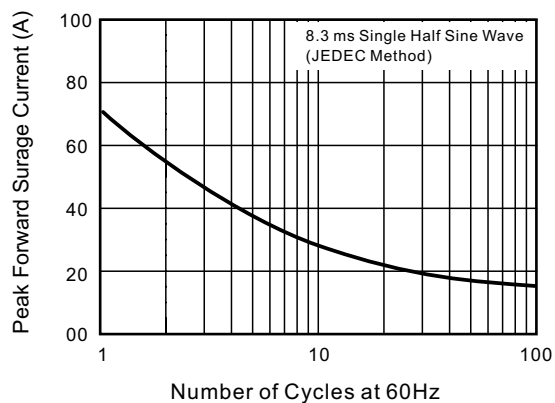
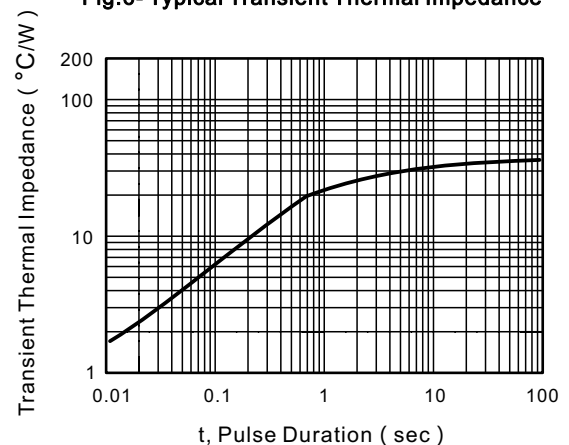


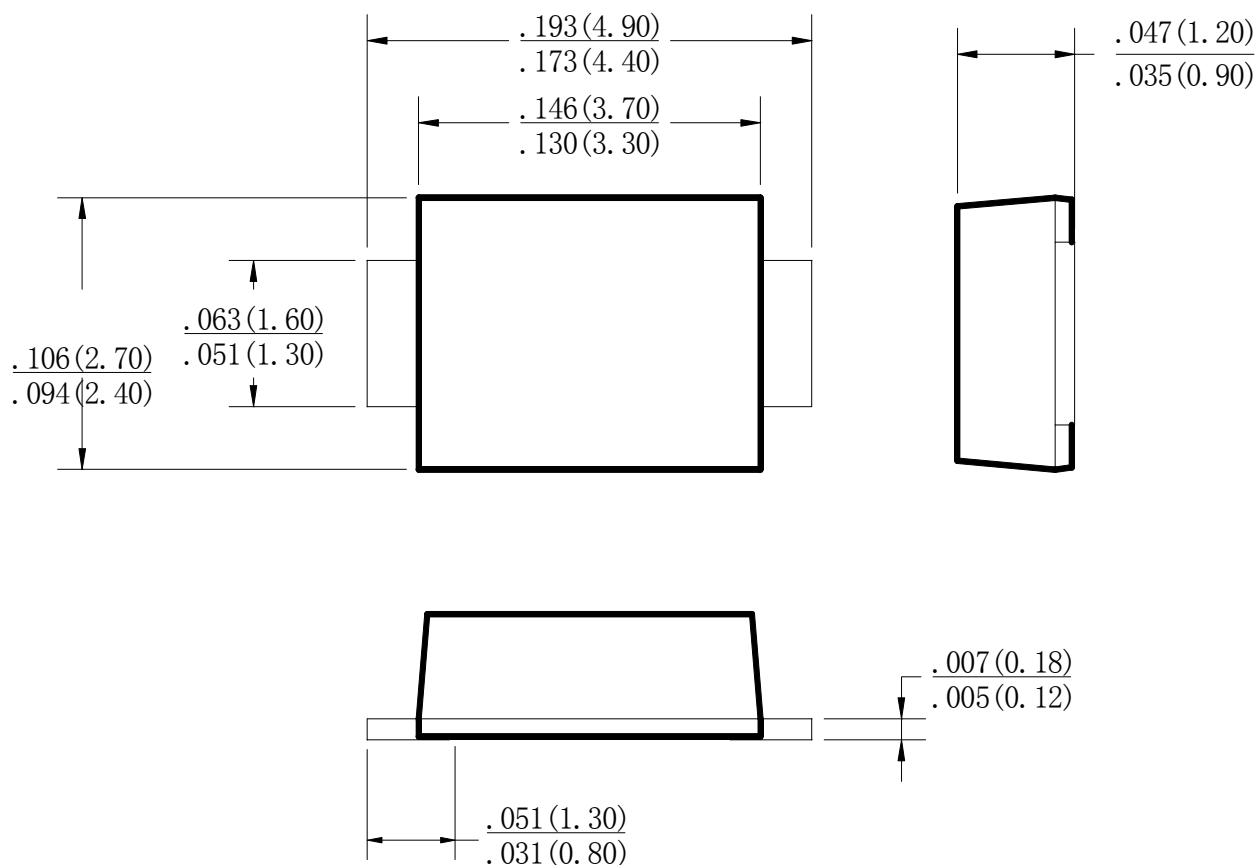
Fig.6- Typical Transient Thermal Impedance





Package Outline Dimensions

SMAF



Dimensions in inches and (millimeters)



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