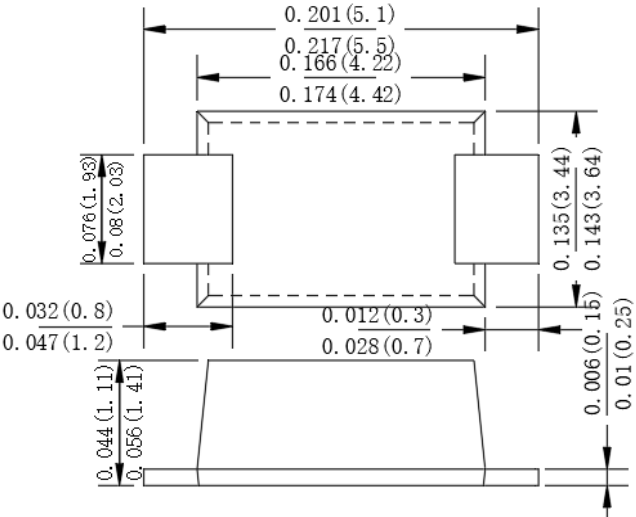


Features	Case: SMBF
- Glass Passivated Die Construction - Low forward voltage drop - High current capability - High reliability - Metal silicon junction, majority carrier conduction - Plastic Case Material has UL Flammability Classification Rating 94V-0	
Mechanical Data	Dimensions in inches and (millimeters)
- Case: Molded plastic SMBF - Terminals: Plated leads solderable per MIL-STD-750, Method 2026 guaranteed - Polarity: Color band denotes cathode end - Mounting Position: Any - Making: Type Number	

Maximum Ratings and Electrical Characteristics

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

Type Number	SYMBOL	S5MBF	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	1000	V
Maximum RMS Voltage	V_{RMS}	700	V
Maximum DC Blocking Voltage	V_{DC}	1000	V
Average Rectified Output Current @ $T_L = 90^\circ C$	$I_{F(AV)}$	5.0	A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150	A
Forward Voltage @ $I_F = 5.0A$	V_{FM}	1.0	V
Peak Reverse Current @ $T_A = 25^\circ C$	I_R	5.0	μA
At Rated DC Blocking Voltage @ $T_A = 125^\circ C$		100	
I^2t Rating for fusing ($t < 8.3ms$)	I^2t	93.37	A^2s
Operating Temperature Range	T_J	-55 to +150	$^\circ C$
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ C$

Fig. 1 Forward Current Derating Curve

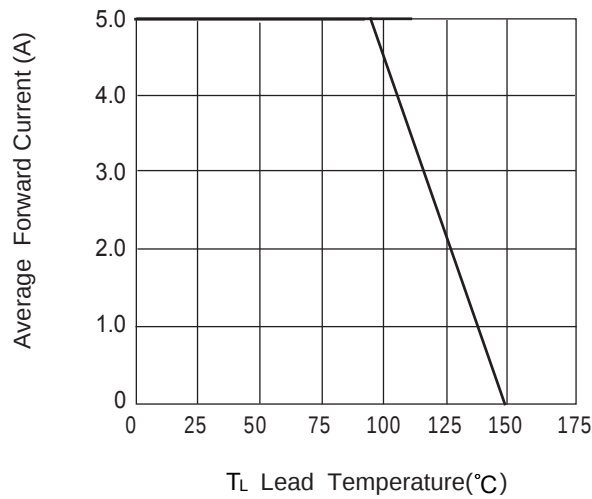


Fig. 2 Typ. Forward Characteristics

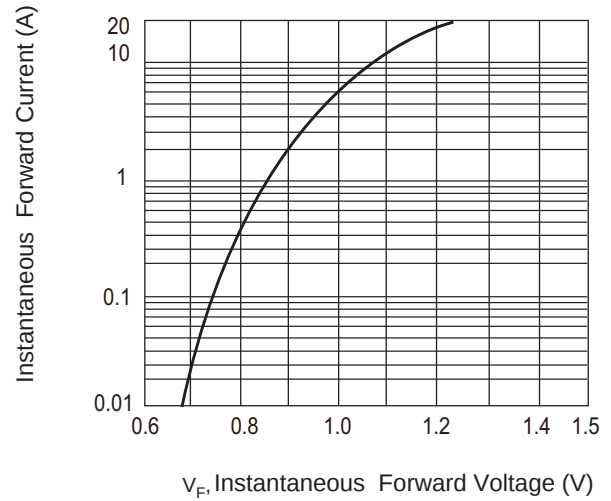


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

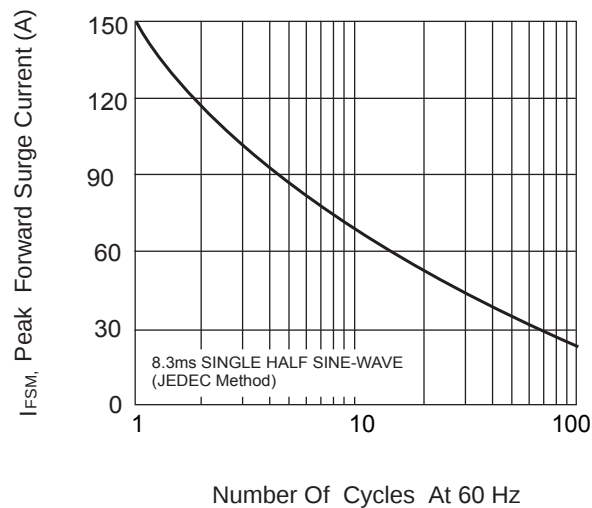


Fig.4 Typical Reverse Characteristics

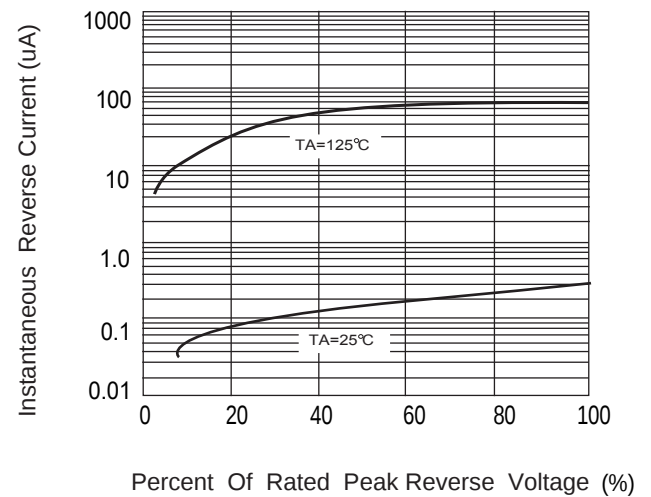


Fig.5 Mounting PAD Layout

