

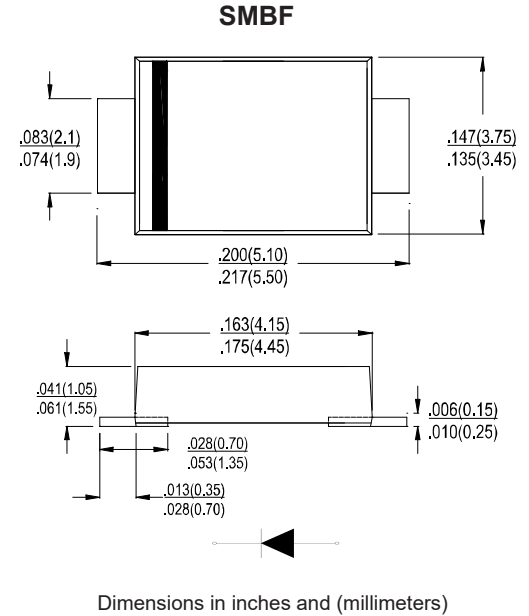
Surface Mount Rectifier Diode

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Idea for printed circuit board
- Glass passivated junction chip
- Low reverse leakage
- High forward surge current capability
- AEC-Q101 qualified
- High temperature soldering guaranteed
260°C/10 seconds at terminals

Mechanical Data

- Case: Molded plastic body
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Polarity symbol marking on body
- Mounting Position: Any



Maximum Ratings and Electrical Characteristics

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

Parameter	Symbol	S5ABFQ	S5BBFQ	S5DBFQ	S5GBFQ	S5JBFQ	S5KBFQ	S5MBFQ	Unit
Maximum repetitive 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
Maximum average forward rectified current at $T_L=100^{\circ}C$	$I_{(AV)}$	5.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150.0							A
Maximum instantaneous forward voltage at 5.0A	V_F	1.0							V
Maximum DC reverse current $T_A=25^{\circ}C$ at rated DC blocking voltage $T_A=125^{\circ}C$	I_R	2.0 200							μA
Typical junction capacitance (Note1)	C_J	50.0							pF
Typical thermal resistance	R_{QA}	85.0							$^{\circ}C/W$
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150							$^{\circ}C$

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.



Ratings and Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

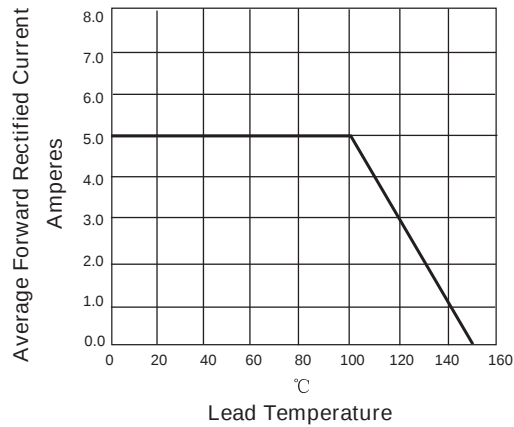


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

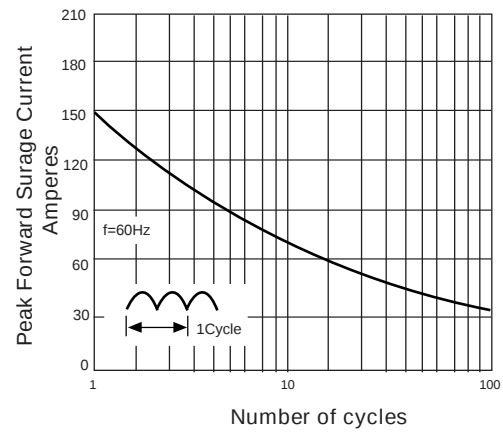


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

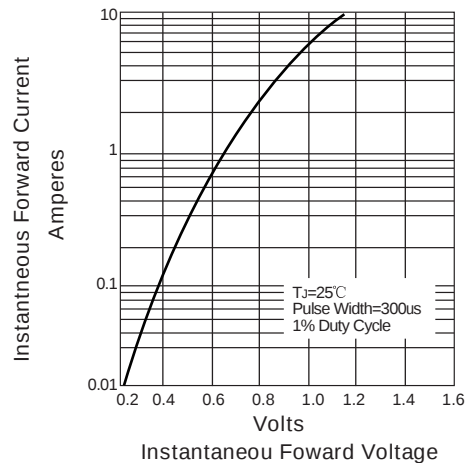
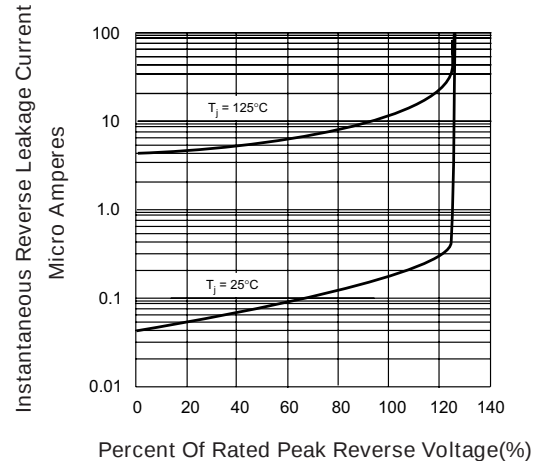
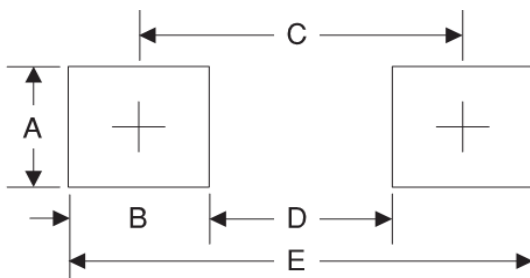


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	2.30	0.091
B	2.00	0.078
C	4.10	0.161
D	2.10	0.083
E	6.10	0.240