

**SINGLE PHASE 3.0AMP GLASS PASSIVATED
BRIDGE RECTIFIERS**
Reverse Voltage - 50 to 1000 V
Forward Current - 3A
FEATURES

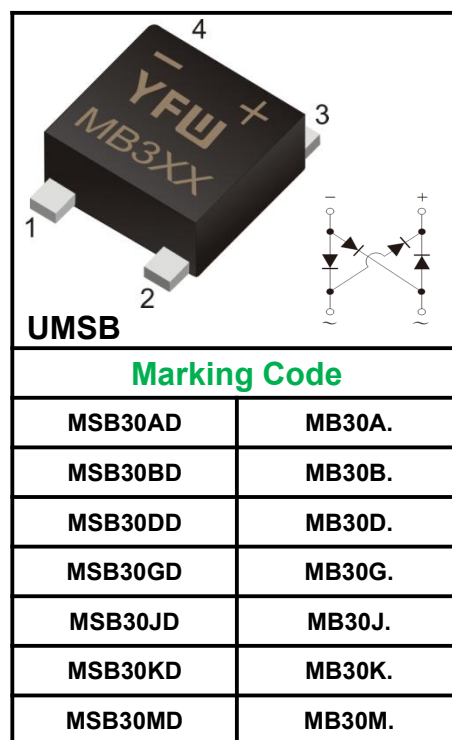
- ◆The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆Idea for printed circuit board
- ◆Glass passivated Junction chip
- ◆Low reverse leakage
- ◆High forward surge current capability
- ◆High temperature soldering guaranteed 250°C/10 seconds at terminals

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	Symbols	MSB30AD	MSB30BD	MSB30DD	MSB30GD	MSB30JD	MSB30KD	MSB30MD	Units
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 $T_L=100^\circ\text{C}$	$I_{(AV)}$	3							A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rate Load	I_{FSM}	120							A
Rating for fusing ($t=8.3\text{ms}$, $T_a=25^\circ\text{C}$)	I^2_t	59.76							A^2s
Maximum instantaneous forward voltage at 3.0A	V_F	1.1							V
Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$	I_R	5.0 500							μA
Typical Junction Capacitance (Note1)	C_j	33							pF
Typical thermal resistance	R_{qJA}	55.0							$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150							$^\circ\text{C}$

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

(2) Mounted on glass epoxy PC board with 4×1.5"×1.5" (3.81×3.81 cm) copper pad.

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

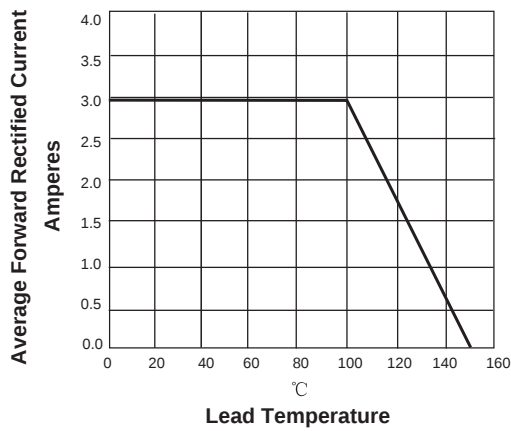


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

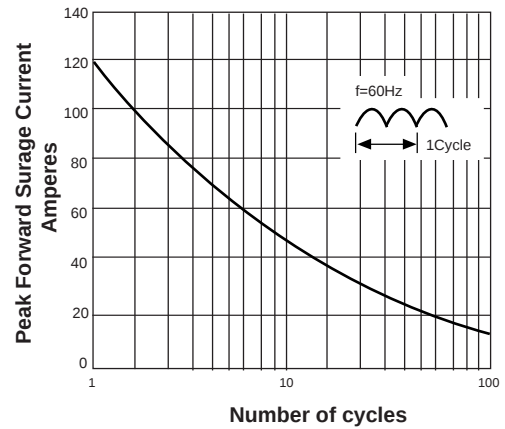


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

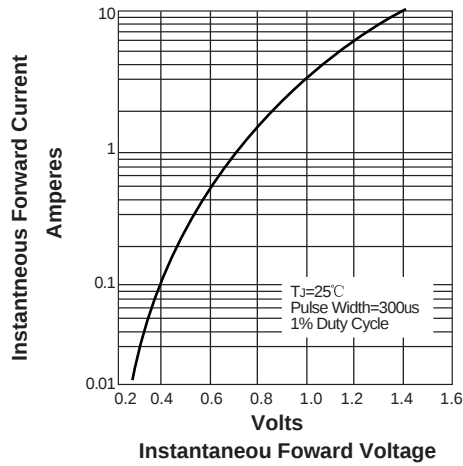
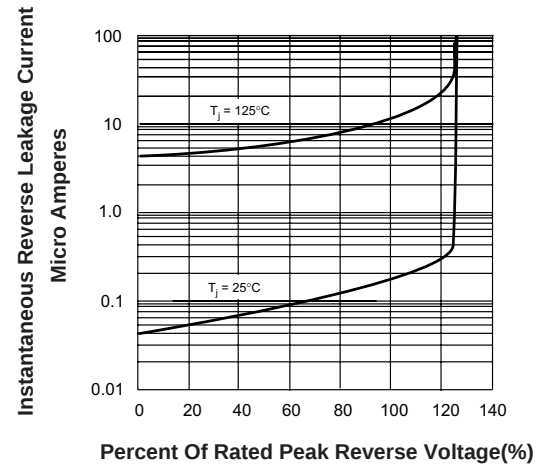
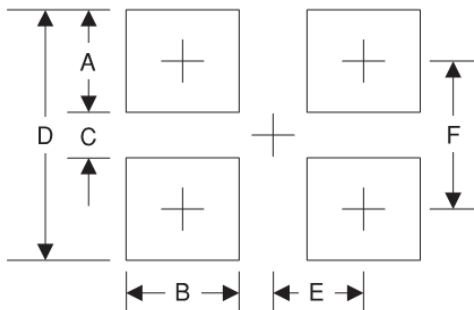


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



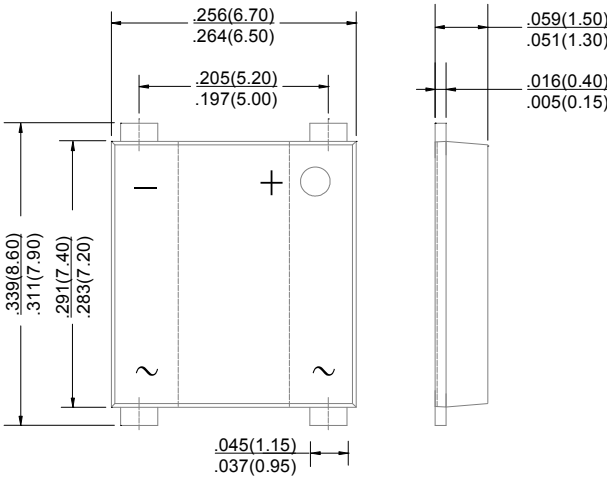
Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	1.8	0.071
B	2.0	0.078
C	5.50	0.216
D	9.15	0.360
E	2.6	0.102
F	7.35	0.289

Package Outline

UMSB



Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
UMSB	Tape/Reel,13"reel	3000	EIA-481-1