

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

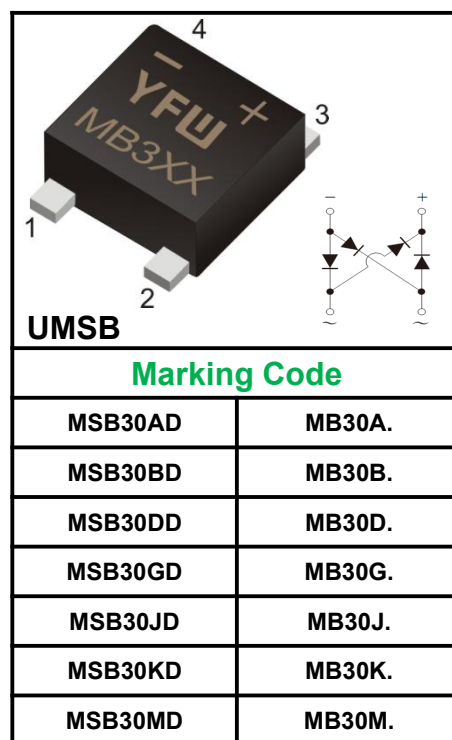
- ◆The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆Idea for printed circuit board
- ◆Glass passivated Junction chip
- ◆Low reverse leakage
- ◆High forward surge current capability
- ◆High temperature soldering guaranteed 250°C/10 seconds at terminals

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

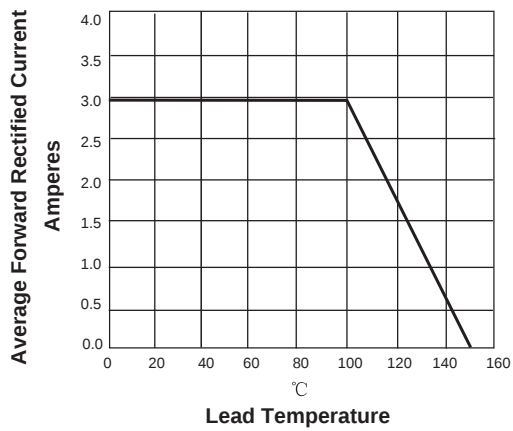


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

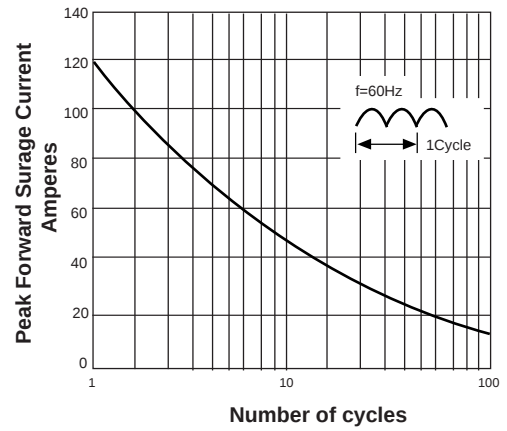


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

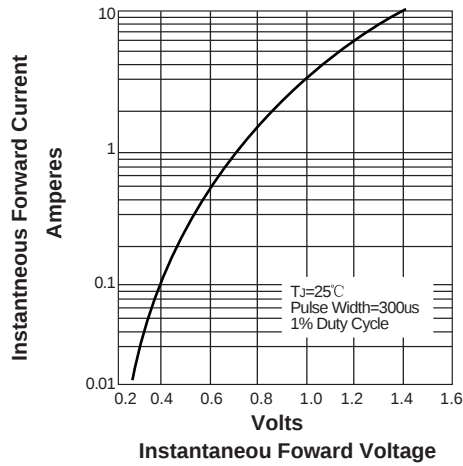
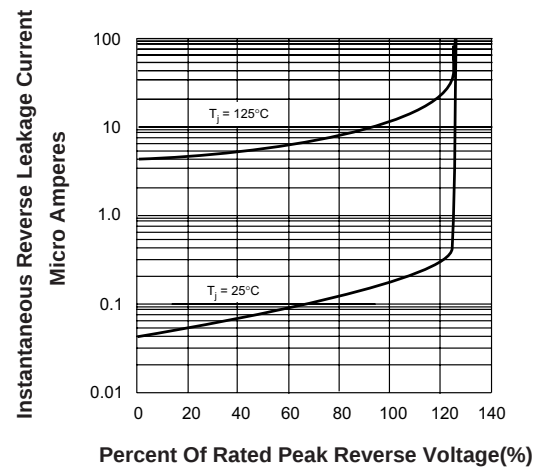
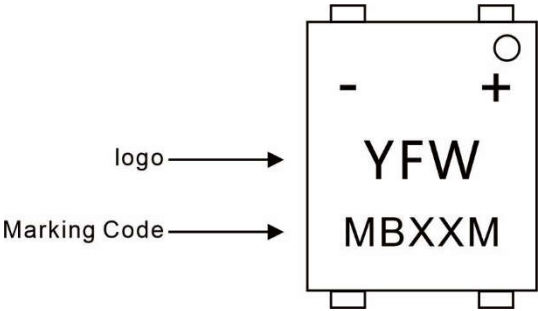


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Marking Diagram



Ordering information

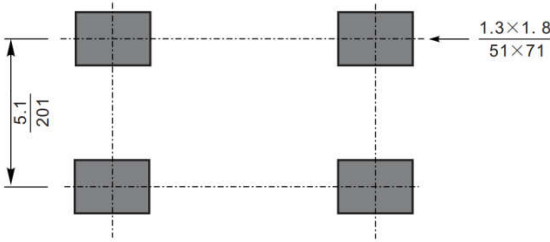
Package	Packing Description	Packing Quantity
UMSB	Tape/Reel, 13"reel	3000PCS/Reel 30000PCS/Carton

Package Dimensions

UMSB

Dim.	Millimeter(mm)		(mil)	
	Min.	Max.	Min.	Max.
A	1.3	1.5	51	59
C	0.17	0.29	7	12
D	6.2	7.0	244	276
E	7.1	7.6	280	299
E ₁	8.4	8.9	331	350
L	1.0	1.6	31.5	55
e	4.9	5.3	193	209
b	0.95	1.15	37	45
∠	10°			

The recommended mounting pad size



Unit: $\frac{\text{mm}}{(\text{mil})}$

Disclaimer

The information presented in this document is for reference only. GuangDong Youfeng Microelectronics Co.,Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise. The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), YFW or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale. This publication supersedes & replaces all information previously supplied. For additional information, please visit our website <https://www.yfwdiode.com>, or consult YFW sales office for further assistance.