

SINGLE PHASE 3.0AMP FASR RECOVERY 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
- ♦Weight : 0.0034 ounce, 0.098 grams

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%.

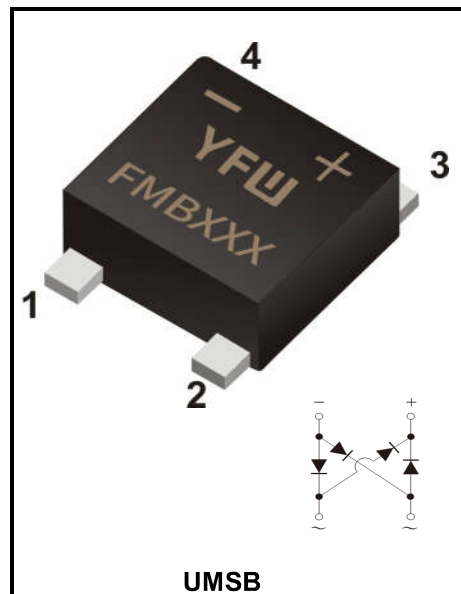
for capacitive load current derate by 20%.

Parameter	Symbols	FMSB 30AD	FMSB 30BD	FMSB 30DD	FMSB 30GD	FMSB 30JD	FMSB 30KD	FMSB 30MD	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 $T_L=100\text{ }^{\circ}\text{C}$ On glass-epoxy P.C.B (Note 1)	$I_{(AV)}$	3.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	120							A
Rating for fusing ($t=8.3\text{ms}$, $T_a=25\text{ }^{\circ}\text{C}$)	I^2t	59.76							A ² s
Maximum instantaneous forward voltage at 3.0A	V_F	1.30							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	5.0 200							μA
Maximum reverse recovery time (Note 2)	T_{rr}	150				250	500		ns
Typical Junction Capacitance (Note3)	C_j	23.0							pF
Typical Thermal Resistance	R_{qJA}	55.0							$^{\circ}\text{C/W}$
Operating junction and storage temperature range	T_J, T_{STG}	-55 ~ +150							$^{\circ}\text{C}$

Note: 1.Mounted on glass epoxy PC board with 1.3*1.3mm solder pad

2.Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{rr}=0.25A$

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



Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

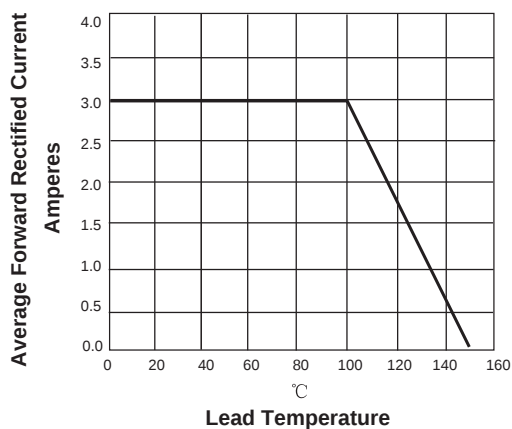


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

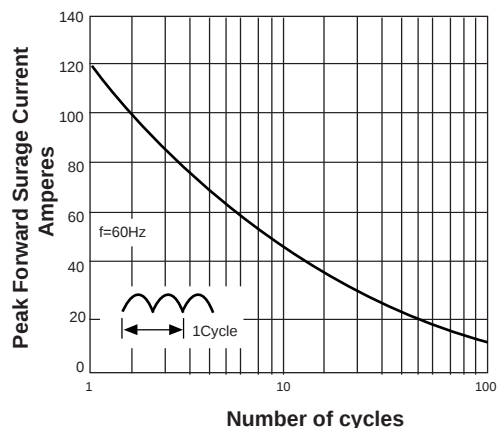


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

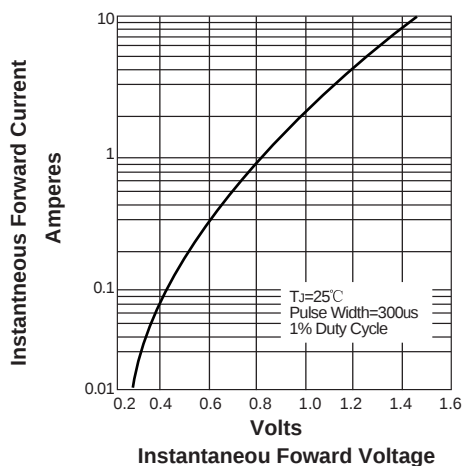
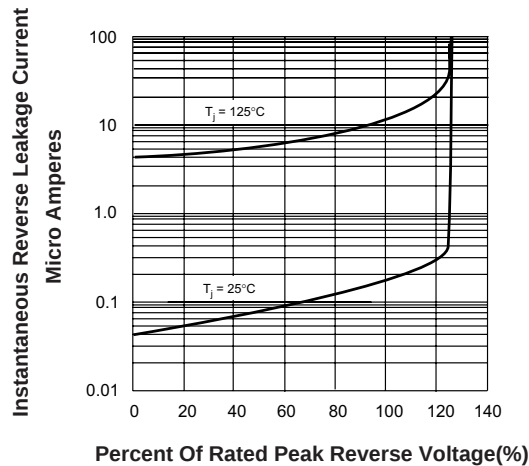
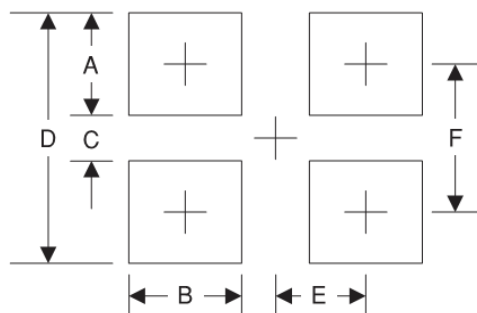


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



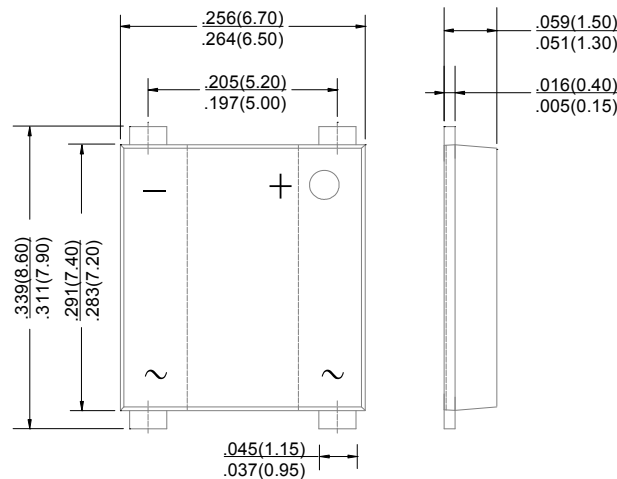
Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	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