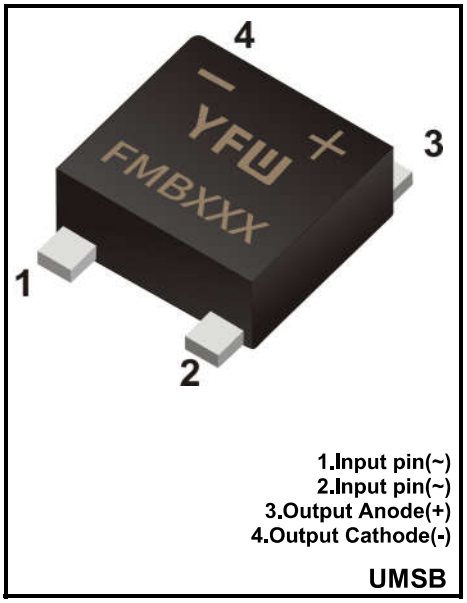
3.0A SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER Reverse Voltage - 100 to 1000 V

Forward Current – 3.0A



FEATURES

- Fast reverse recovery time
- Designed for Surface Mount Application
- Glass Passivated Chip Junction
- Low power loss, high efficiency
- Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- Case: UMSB
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.234g / 0.00824oz

Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	FMSB30B	FMSB30D	FMSB30G	FMSB30J	FMSB30K	FMSB30M	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	100	200	400	600	800	1000	V
Average Rectified Output Current at T_c = 115 °C	I_o	3.0						A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load(JEDEC method)	I_{FSM}	90						A
Forward Voltage per element at 3.0A	V_F	1.1						V
Maximum DC Reverse Current @T_A=25°C at Rated DC Blocking Voltage @T_A=125°C	I_R	5.0 200						μA
Typical Junction Capacitance (Note1)	C_j	40						pF
Maximum Reverse Recovery Time (Note2)	T_{rr}	150			250		500	nS
Typical Thermal Resistance (Note3)	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	65 15 30						°C/W
Operating and Storage Temperature Range	Tj, Tstg	-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.

Fig.1 Average Rectified Output Current Derating Curve

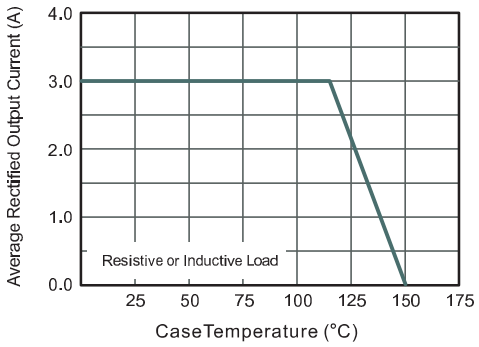


Fig.2 Typical Reverse Characteristics

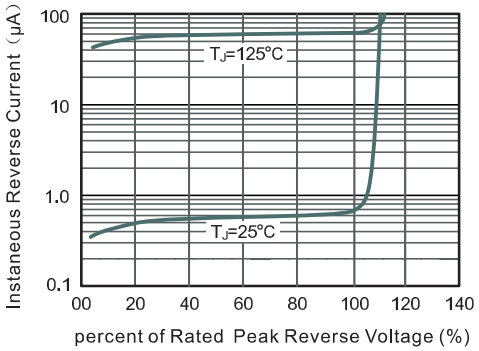


Fig.3 Typical Instaneous Forward Characteristics

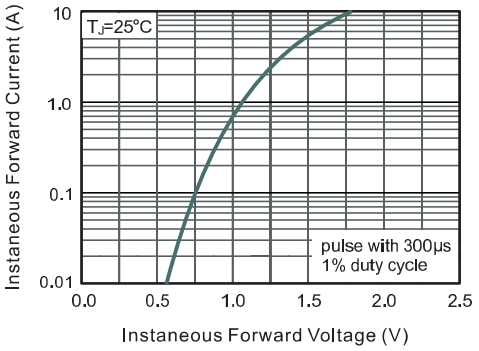


Fig.4 Typical Junction Capacitance

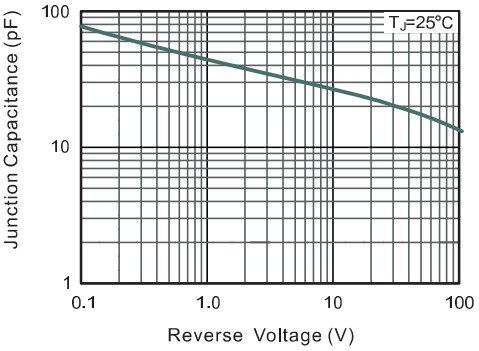


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

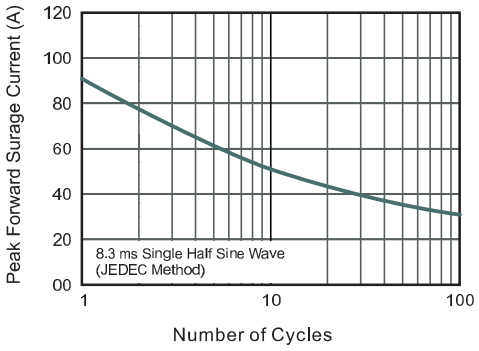
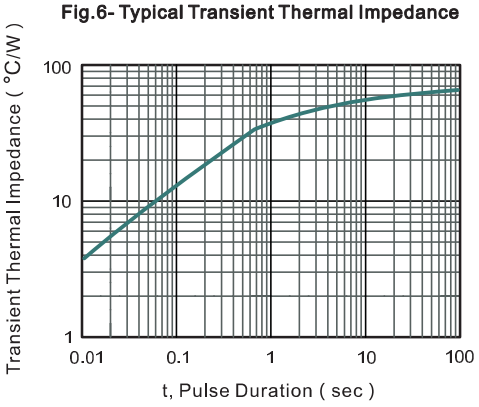
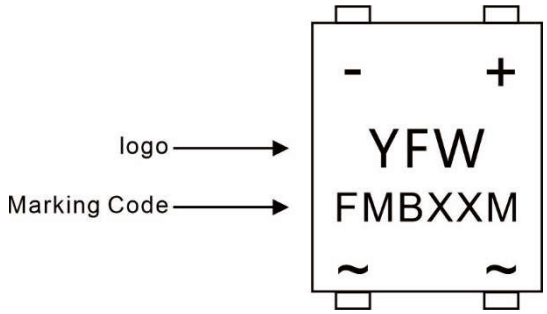


Fig.6- Typical Transient Thermal Impedance



Marking Diagram

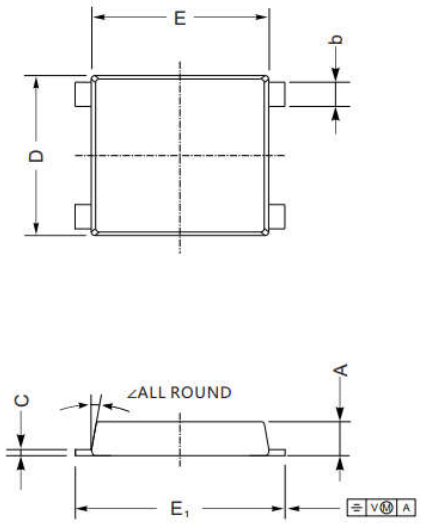


Ordering information

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

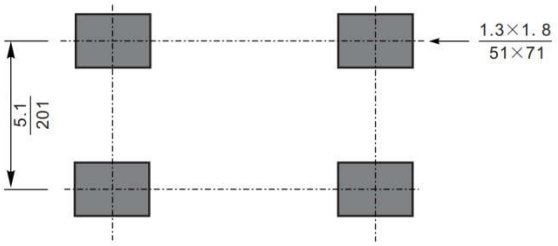
Package Dimensions

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: mm (mil)

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