

3A SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

FEATURES:

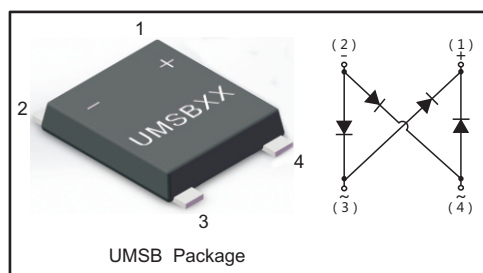
- Glass Passivated Chip Junction
- Reverse Voltage - 100 to 1000 V
- Forward Current - 3.0 A
- Fast reverse recovery time
- Designed for Surface Mount Application

MECHANICAL DATA

- Case: UMBS
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.234g / 0.00825oz

PINNING

PIN	DESCRIPTION
1	Output Anode (+)
2	Output Cathode (-)
3	Input Pin (~)
4	Input Pin (~)



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	UMSB30B	UMSB30D	UMSB30G	UMSB30J	UMSB30K	UMSB30M	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 $T_{\sigma} = 115^{\circ}C$	I_O	3.0						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	80						A
Maximum Forward Voltage at 3.0 A	V_F	1.0		1.4		1.6		V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_a = 25^{\circ}C$ $T_a = 125^{\circ}C$	I_R	5.0 100						μA
Typical Junction Capacitance (Note1)	C_j	50						pF
Typical Thermal Resistance (Note2)	$R_{\theta JA}$	40						$^{\circ}C/W$
Maximum Reverse Recovery Time (Note3)	t_{rr}	50			75			ns
Operating and Storage Temperature Range	$T_j T_{stg}$	-55 ~ +150						$^{\circ}C$

Note: 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.

3. Measured with $I_F = 0.5 A$, $I_R = 1 A$, $I_{rr} = 0.25 A$.



Fig.1 Average Rectified Output Current Derating Curve

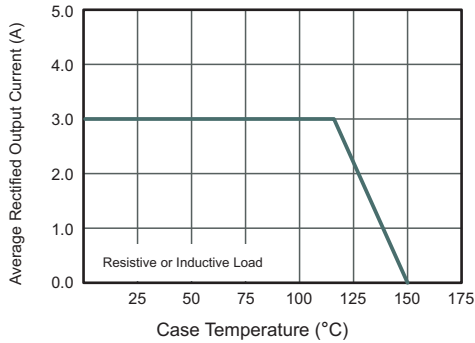


Fig.2 Typical Reverse Characteristics

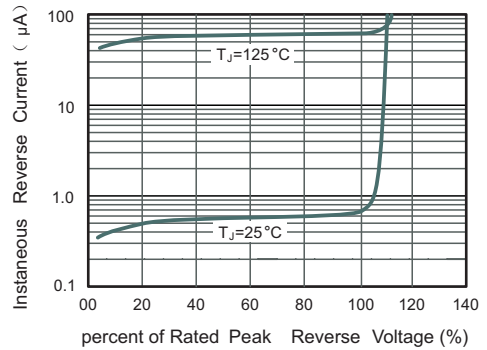


Fig.3 Typical Instantaneous Forward Characteristics

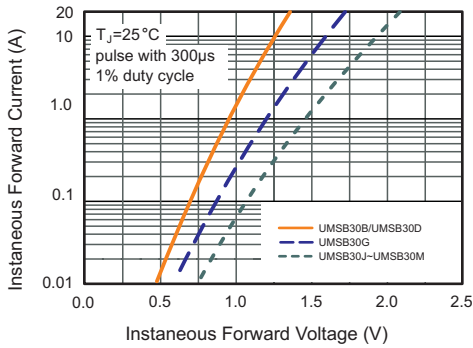


Fig.4 Typical Junction Capacitance

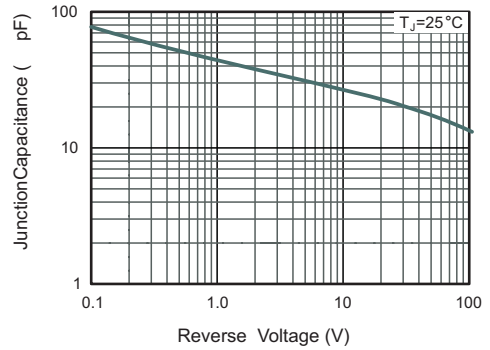
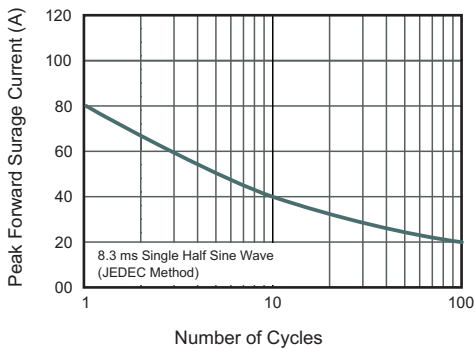


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

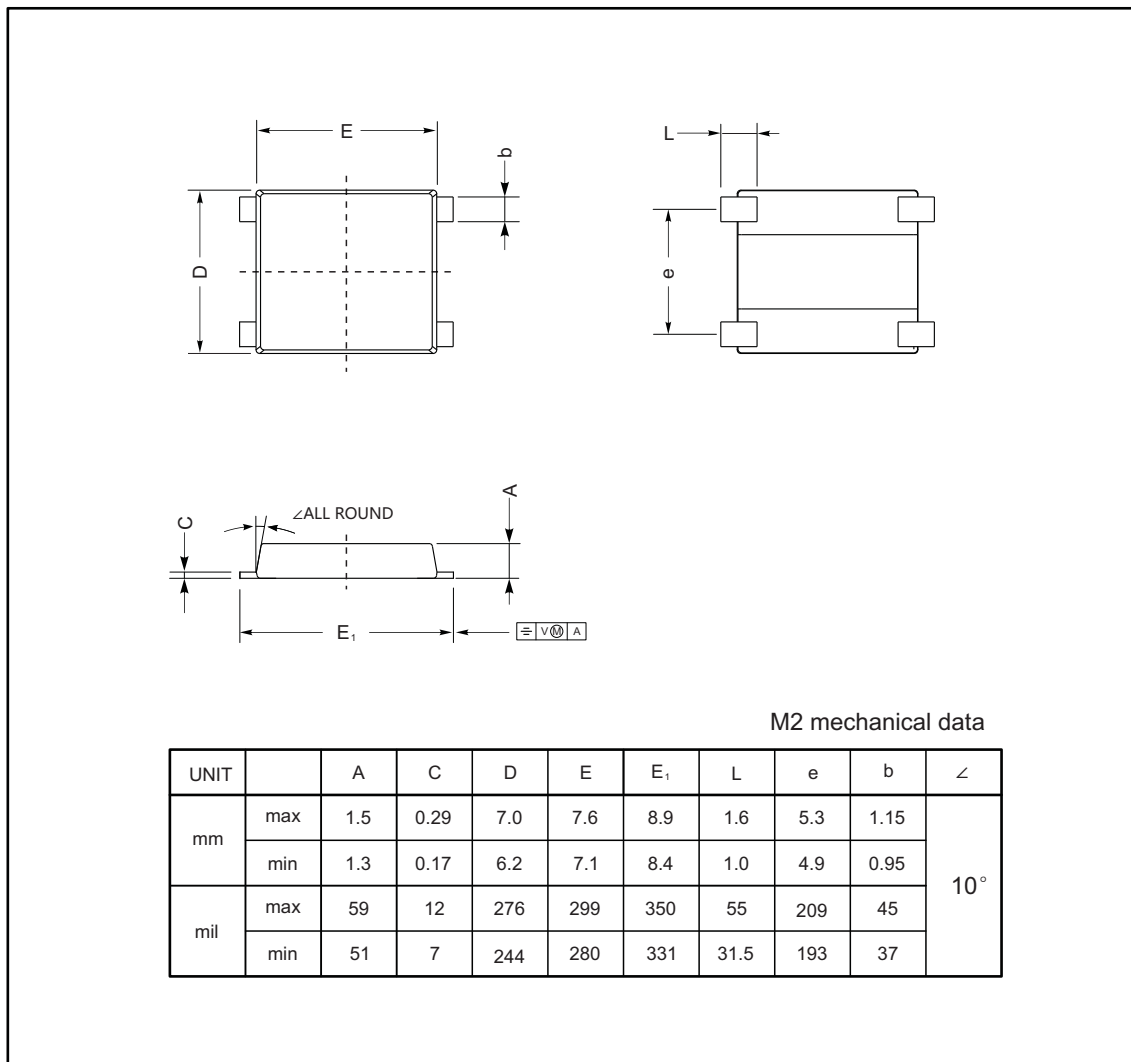




PACKAGE OUTLINE

Plastic surface mounted package; 4 leads

UMSB



Marking

Type number	Marking code
UMSB30B	UMB30B
UMSB30D	UMB30D
UMSB30G	UMB30G
UMSB30J	UMB30J
UMSB30K	UMB30K
UMSB30M	UMB30M