



FMSB20B THRU FMSB20M

2A SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

FEATURES:

- Glass Passivated Chip Junction
- Reverse Voltage - 100 to 1000 V
- Forward Current - 2.0 A
- Fast reverse recovery time
- Designed for Surface Mount Application

MECHANICAL DATA

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

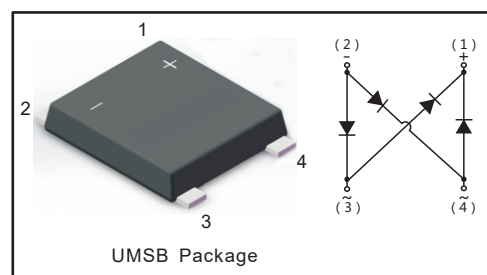
Maximum Ratings and Electrical characteristics

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 %.

PINNING

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

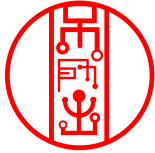


Parameter	Symbols	FMSB20B	FMSB20D	FMSB20G	FMSB20J	FMSB20K	FMSB20M	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	100	200	400	600	800	1000	V
Average Rectified Output Current at $T_c = 115^\circ\text{C}$	I_O	2.0						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	50						A
Maximum Forward Voltage at 2.0 A	V_F	1.3						V
Maximum DC Reverse Current $T_a = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_a = 125^\circ\text{C}$	I_R	5.0 200						μA
Typical Junction Capacitance (Note1)	C_j	30						pF
Typical Thermal Resistance (Note2)	$R_{\theta JA}$ $R_{\theta JA}$ $R_{\theta JA}$	60 15 25						$^\circ\text{C/W}$
Maximum Reverse Recovery Time (Note3)	t_{rr}	500						ns
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150						$^\circ\text{C}$

Note: 1. Measured at 1 MHz and applied reverse voltage of 4 V D.C

2. Mounted on glass epoxy PC board with $4 \times 1.5 \times 1.5$ (3.81 $\times$ 3.81 cm) copper pad.

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



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Fig.1 Average Rectified Output Current Derating Curve

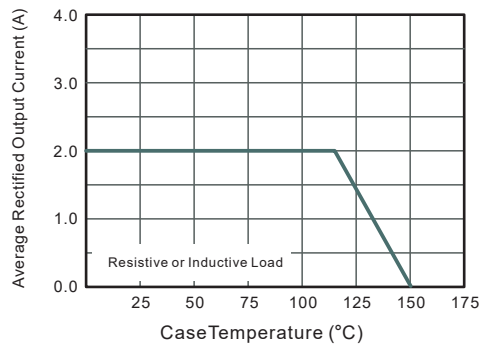


Fig.2 Typical Reverse Characteristics

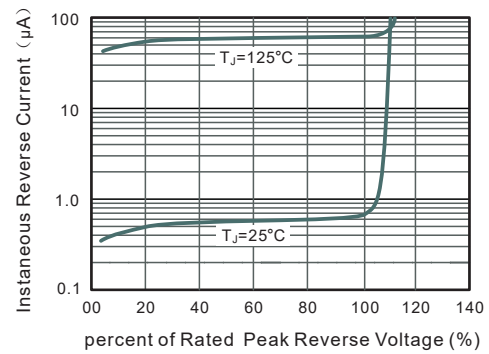


Fig.3 Typical Instantaneous Forward Characteristics

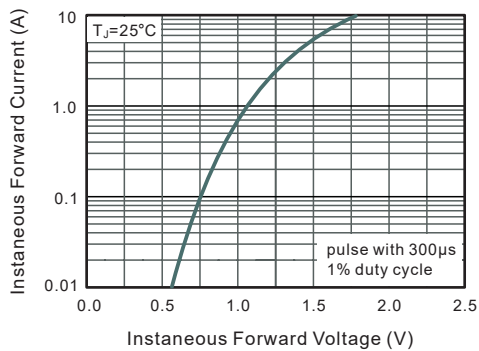


Fig.4 Typical Junction Capacitance

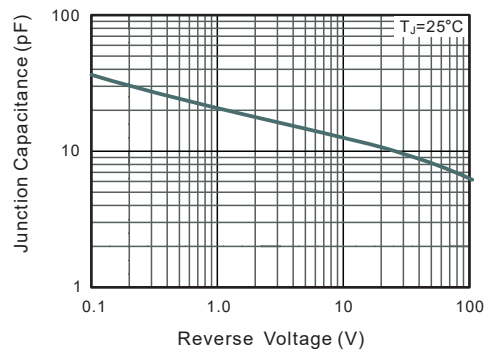


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

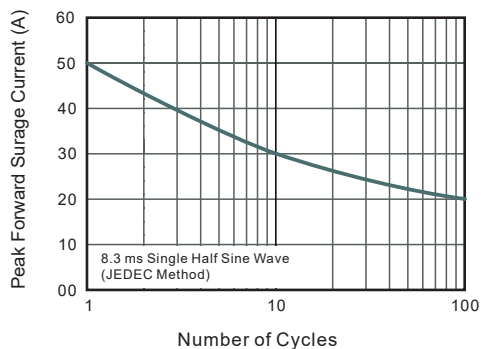
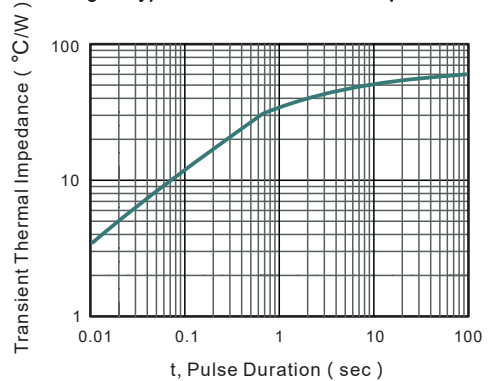
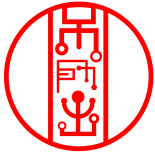


Fig.6- Typical Transient Thermal Impedance



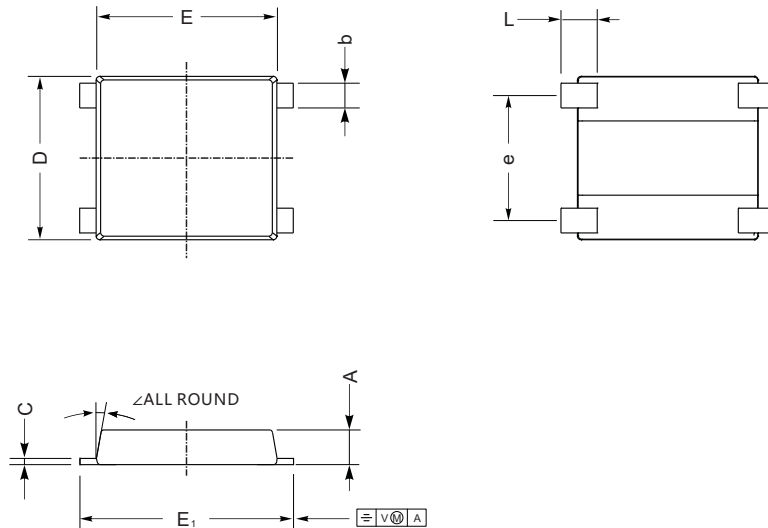


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PACKAGE OUTLINE

Plastic surface mounted package; 4 leads

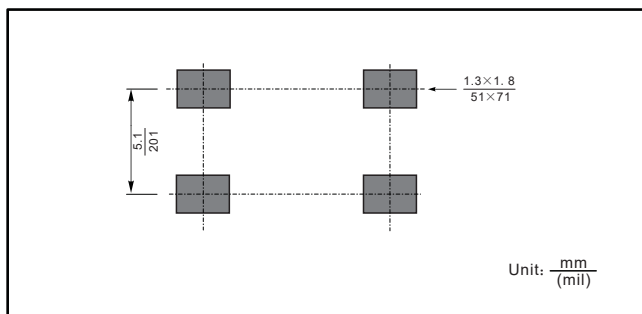
UMSB



M2 mechanical data

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

The recommended mounting pad size



Marking

Type number	Marking code
FMSB20B	FMB20B
FMSB20D	FMB20D
FMSB20G	FMB20G
FMSB20J	FMB20J
FMSB20K	FMB20K
FMSB20M	FMB20M