

## SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

### 4A SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

#### FEATURES:

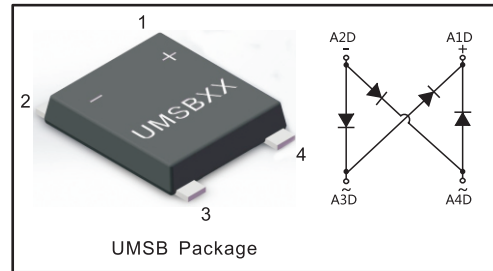
- "Glass Passivated Chip Junction
- " Reverse Voltage - 100 to1000 V
- " Forward Current - 4.0 A
- "Fast reverse recovery time
- " Designed for Surface Mount Application

#### MECHANICAL DATA

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

#### PINNING

PIN	DESCRIPTION
1	Output AnodeA+D
2	Output CathodeA-D
3	Input PinA~D
4	Input PinA~D



#### 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 %.

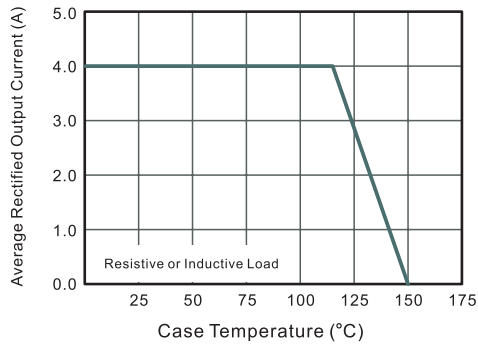
Parameter	Symbols	FMSB40B	FMSB40D	FMSB40G	FMSB40J	FMSB40K	FMSB40M	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	100	200	400	600	800	1000	V
Average Rectified Output Current at $T_c = 115\text{ }^\circ\text{C}$	$I_o$	4.0						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	95						A
Maximum Forward Voltage at 4.0 A	$V_F$	1.3						V
Maximum DC Reverse Current $T_a = 25\text{ }^\circ\text{C}$ at Rated DC Blocking Voltage $T_a = 125\text{ }^\circ\text{C}$	$I_R$	5.0 200						%A
Typical Junction CapacitanceA Note1D	$C_j$	50						pF
Typical Thermal ResistanceA Note2D	$R_{JA}$	40						$^\circ\text{C/W}$
Maximum Reverse Recovery Time A Note3D	$t_{rr}$	150			250	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

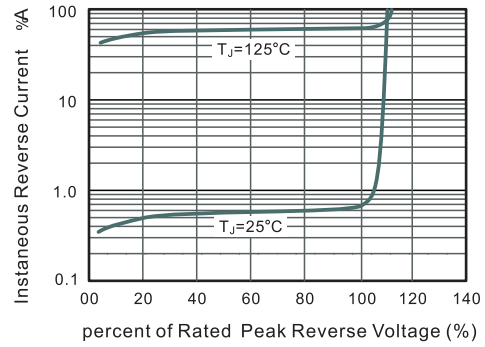
2. Mounted on glass epoxy PC board with 4×1.5"×1.5" 3.81 3.81 cm copper pad.

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

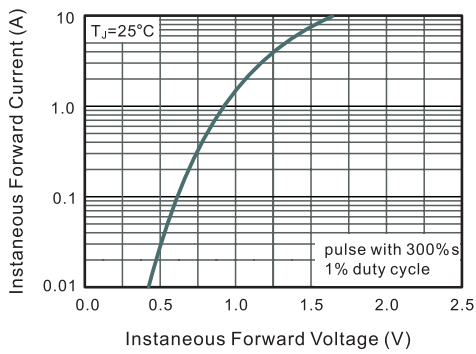
**Fig.1 Average Rectified Output Current Derating Curve**



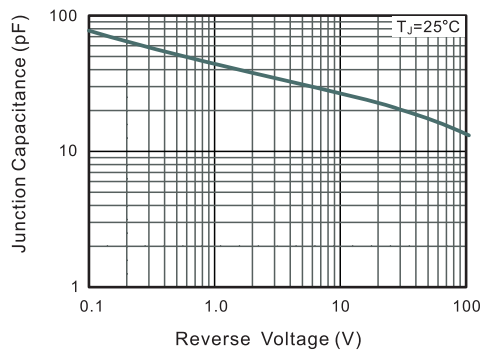
**Fig.2 Typical Reverse Characteristics**



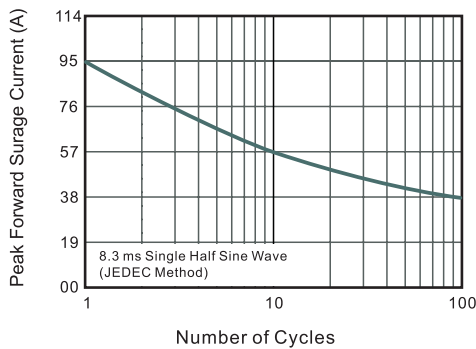
**Fig.3 Typical Instantaneous Forward Characteristics**



**Fig.4 Typical Junction Capacitance**



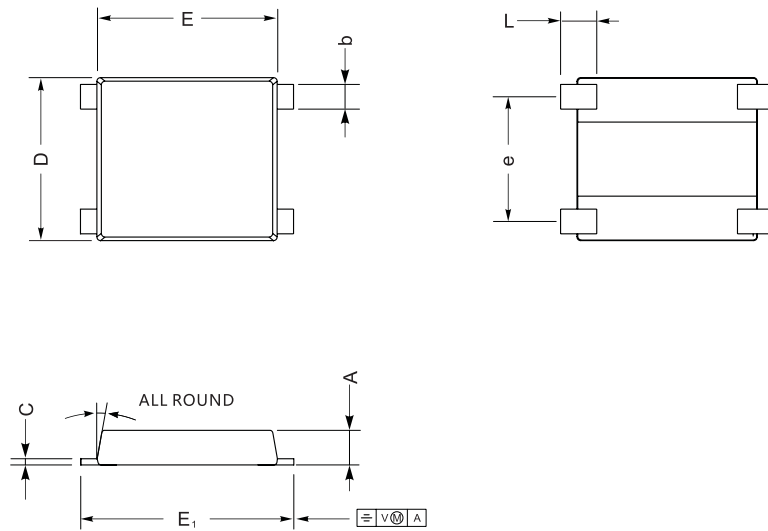
**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**



### PACKAGE OUTLINE

Plastic surface mounted package; 4 leads

UMSB



M2 mechanical data

UNIT		A	C	D	E	E <sub>1</sub>	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	

### Marking

Type number	Marking code
FMSB40B	FMB40B
FMSB40D	FMB40D
FMSB40G	FMB40G
FMSB40J	FMB40J
FMSB40K	FMB40K
FMSB40M	FMB40M