

# MSB30B THRU MSB30M

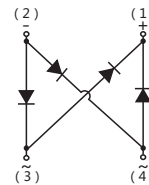
## 3.0 Amps Surface Mount Glass Passivated Bridge Rectifier



### Features:

- Glass Passivated Chip Junction
- Reverse Voltage - 100 to 1000 V
- Forward Current - 3.0 A
- High Surge Current Capability
- Designed for Surface Mount Application

UMSB



### PINNING

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

### Absolute Maximum Ratings (Ta=25°C unless otherwise noted)

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbols	MSB30B	MSB30D	MSB30G	MSB30J	MSB30K	MSB30M	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	$I_o$	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	$V_F$	1.1						V
Maximum DC Reverse Current at Rated DC Blocking Voltage @T <sub>A</sub> =25 °C @T <sub>A</sub> =125 °C	$I_R$	5 100						μA
Typical Junction Capacitance ( Note1 )	$C_j$	40						pF
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>stg</sub>	-55 ~ +150						°C

Note: 1. Measured at 1MHz 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.

Typical Characteristics

Fig.1 Average Rectified Output Current Derating Curve

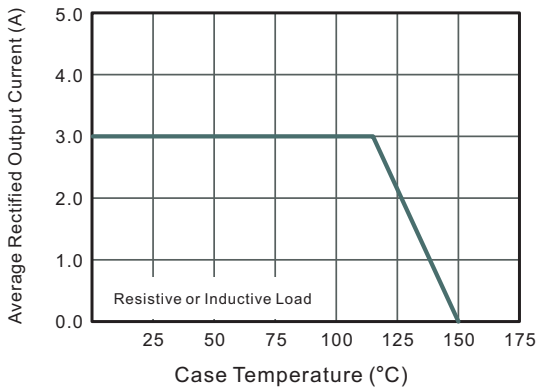


Fig.2 Typical Reverse Characteristics

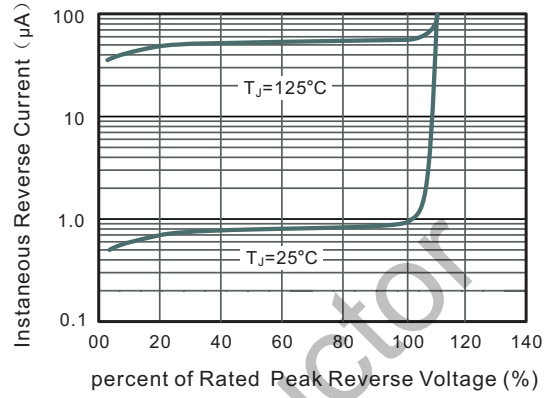


Fig.3 Typical Instantaneous Forward Characteristics

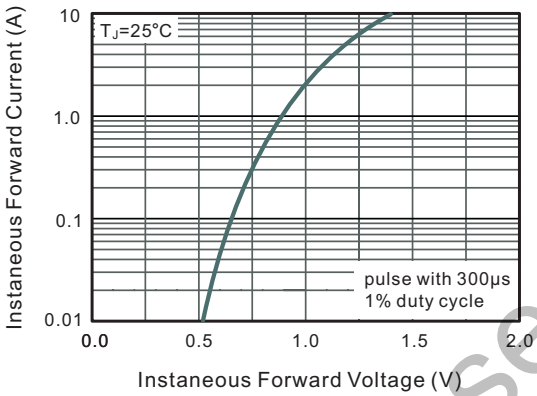


Fig.4 Typical Junction Capacitance

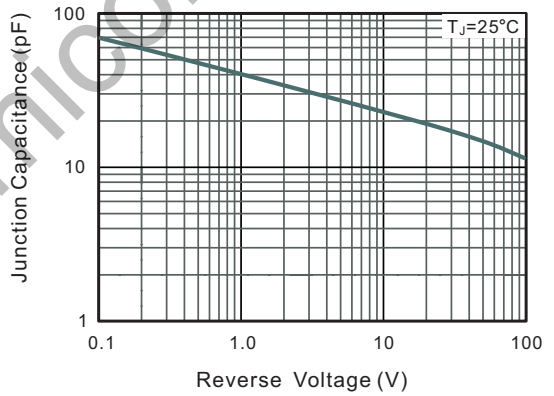
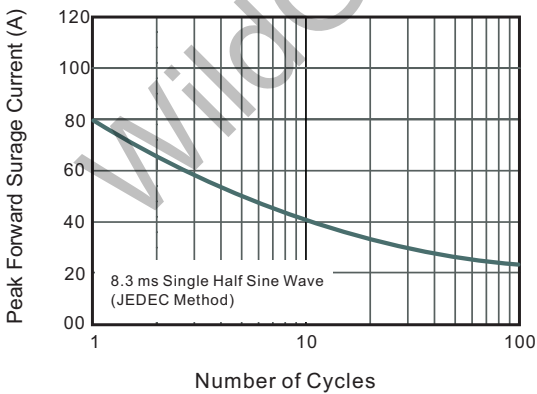
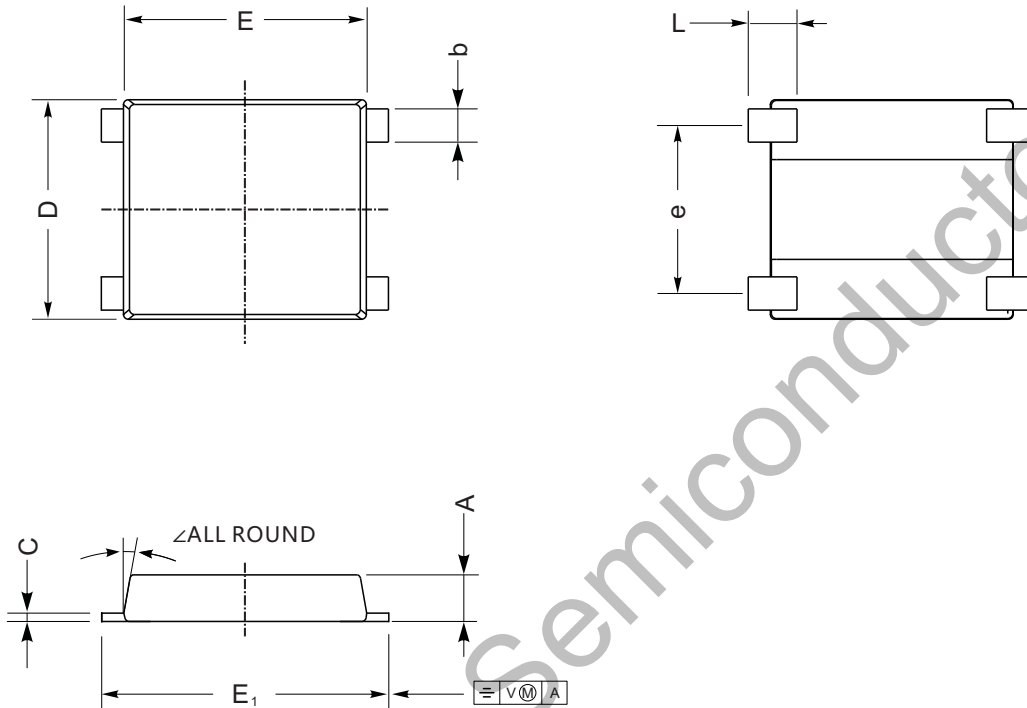


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



### Package Dimension

### UMSB



### UMSB 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
MSB30B	MB30B
MSB30D	MB30D
MSB30G	MB30G
MSB30J	MB30J
MSB30K	MB30K
MSB30M	MB30M