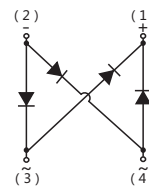




Features:

- ☐ Glass Passivated Chip Junction
- ☐ Reverse Voltage - 100 to 1000 V
- ☐ Forward Current - 2.0 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	MSB20B	MSB20D	MSB20G	MSB20J	MSB20K	MSB20M	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	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	1.1						V
Maximum DC Reverse Current at Rated DC Blocking Voltage @T _A =25 °C @T _A =125 °C	I_R	5 100						μA
Typical Junction Capacitance (Note1)	C_j	30						pF
Typical Thermal Resistance (Note2)	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	60 10 25						°C/W
Operating and Storage Temperature Range	T _j , T _{stg}	-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

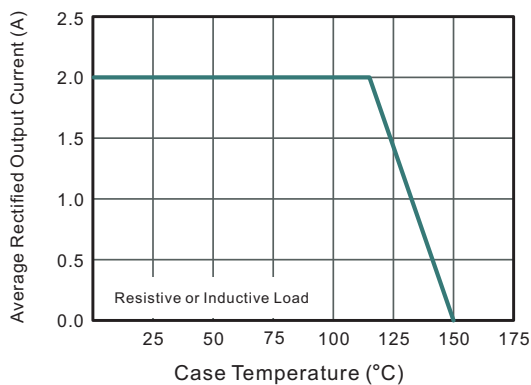


Fig.2 Typical Reverse Characteristics

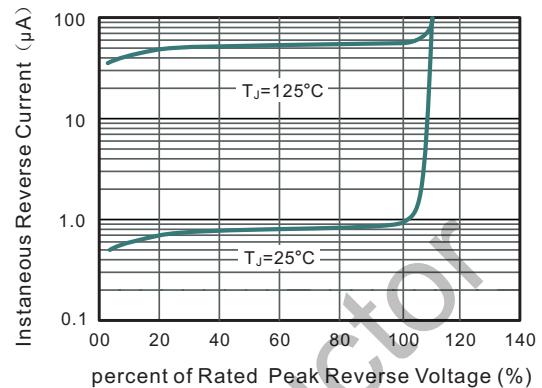


Fig.3 Typical Instaneous Forward Characteristics

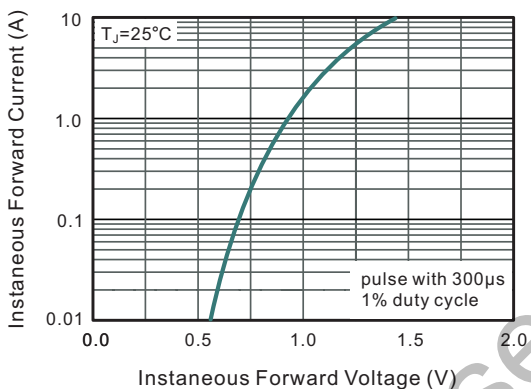


Fig.4 Typical Junction Capacitance

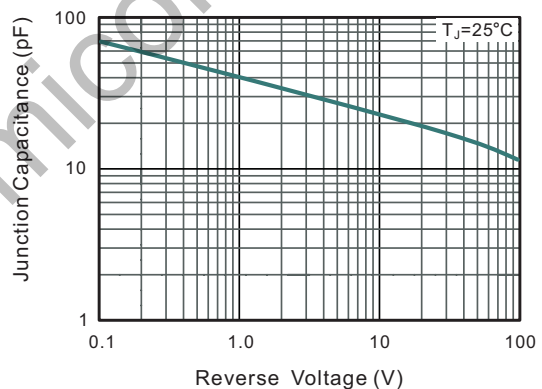


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

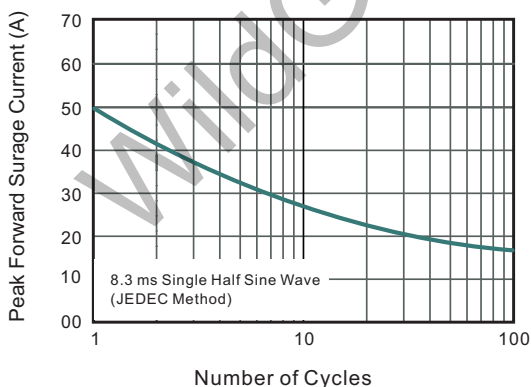
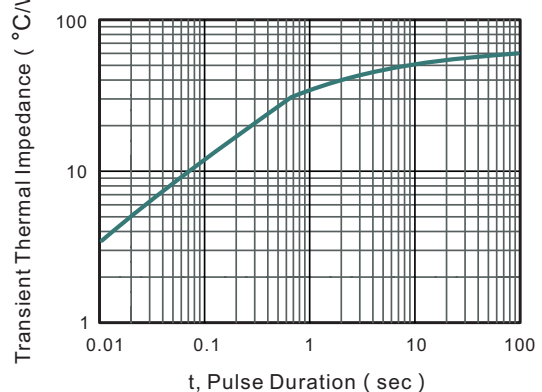
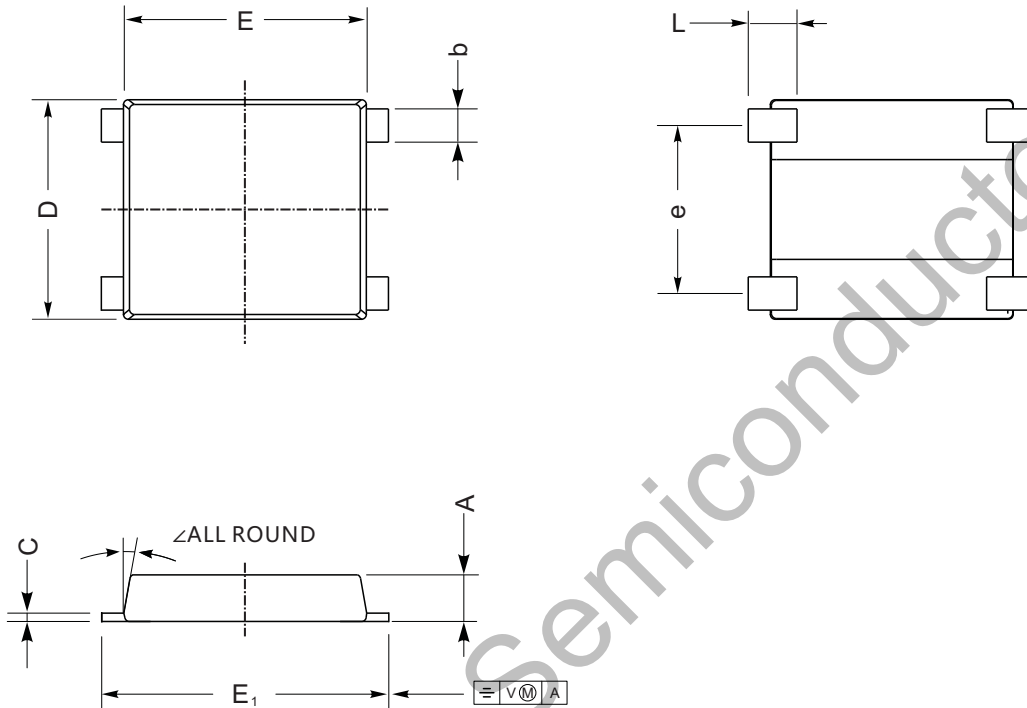


Fig.6- Typical Transient Thermal Impedance



Package Dimension**UMSB****UMSB 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	

Marking

Type number	Marking code
MSB20B	MB20B
MSB20D	MB20D
MSB20G	MB20G
MSB20J	MB20J
MSB20K	MB20K
MSB20M	MB20M