

**FEATURES:**

- Glass Passivated Chip Junction
- Reverse Voltage - 50 to 1000 V
- Forward Current - 5.0 A
- High Surge Current Capability
- Designed for Surface Mount Application

**MECHANICAL DATA**

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

**Marking**

Marking code
MB50A -- MB50M

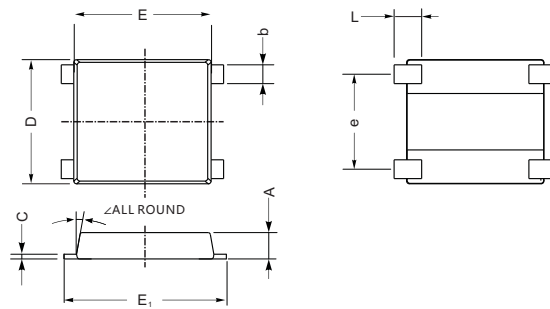
**VOLTAGE RANGE**

50 to 1000 Volts

**CURRENT**

5.0 Ampere

**UMSB**



UNIT		A	C	D	E	E <sub>1</sub>	L	e	b	Z
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	

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

TYPE NUMBER	MSB50A	MSB50B	MSB50D	MSB50G	MSB50J	MSB50K	MSB50M	UNIT	
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
Maximum RMS Voltage	35	70	140	280	420	560	700	V	
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V	
Maximum Average Forward Rectified Current at Ta=40°C(Note 1)								5.0	A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)								150	A
I <sup>2</sup> t Rating for Fusing (1ms < t < 8.3ms)								93.375	A <sup>2</sup> S
Maximum Forward Voltage Drop per Bridge Element at 5.0A								1.1	V
Maximum DC Reverse Current Ta=25°C								5.0	µA
at Rated DC Blocking Voltage Ta=125°C								200	µA
Typical Thermal Resistance R <sub>JA</sub> (Note 2)								50	°C/W
Operating Temperature Range, T <sub>J</sub>								-55 — +150	°C
Storage Temperature Range, T <sub>STG</sub>								-55 — +150	°C

NOTES: 1. Mounted on P.C. Board.  
 2. Thermal Resistance Junction to Ambient.

## RATING AND CHARACTERISTIC CURVES (MSB50A THRU MSB50M)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

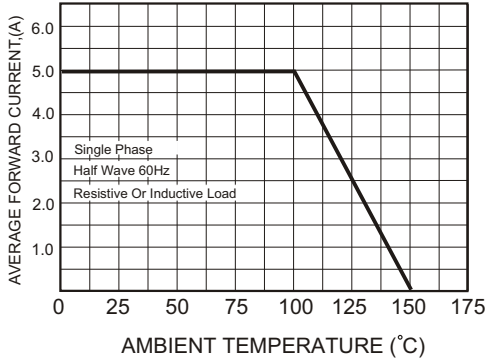


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

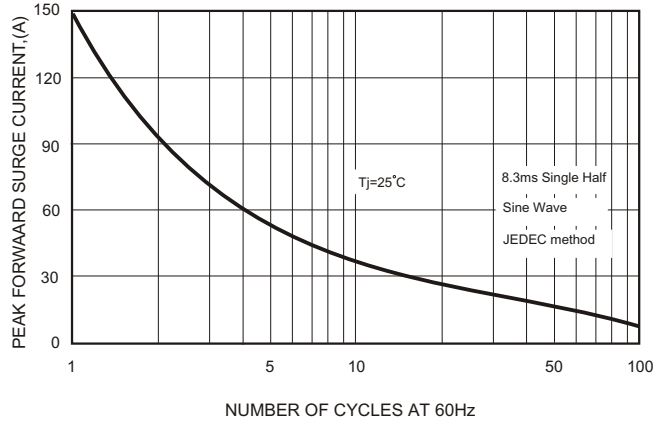


FIG.3-TYPICAL FORWARD CHARACTERISTICS

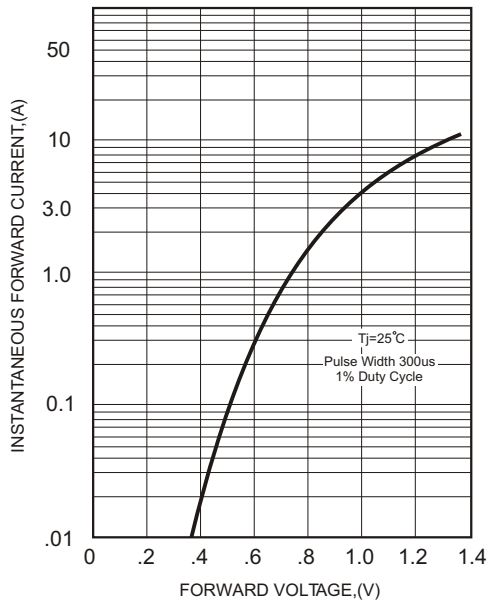


FIG.4-TYPICAL REVERSE CHARACTERISTICS

