MSB40A THRU MSB40M

4.0 AMP SURFACE MOUNT BRIDGE RECTIFIERS

FEATURES:

- Glass Passivated Chip Junction
- Reverse Voltage - 50 to 1000 V
- Forward Current - 4.0 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
MB40A --- MB40M

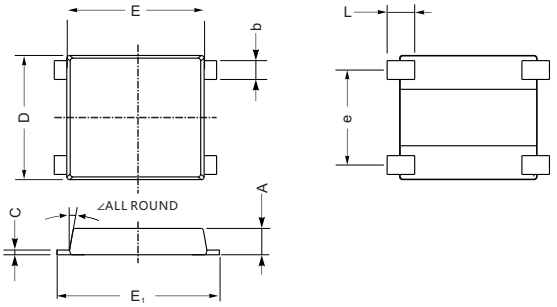
VOLTAGE RANGE

50 to 1000 Volts

CURRENT

4.0 Ampere

UMSB



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	

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

TYPE NUMBER	MSB40A	MSB40B	MSB40D	MSB40G	MSB40J	MSB40K	MSB40M	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)	4.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	9 5							A
I^2t Rating for Fusing (1ms < t < 8.3ms)	60							A^2S
Maximum Forward Voltage Drop per Bridge Element at 4.0A	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 JA (Note 2)	50							°C/W
Operating Temperature Range, T_J	-55 — +150							°C
Storage Temperature Range, T_{STG}	-55 — +150							°C

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

RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

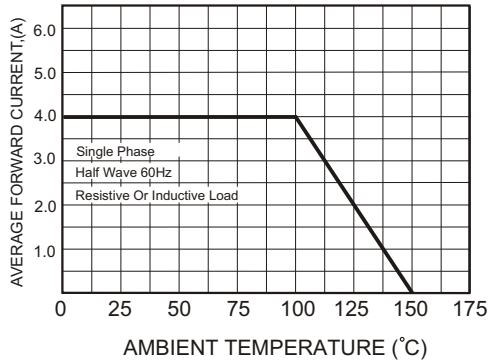


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

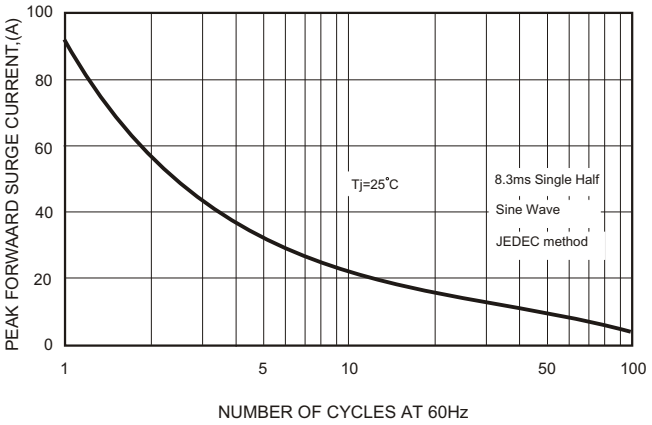


FIG.3-TYPICAL FORWARD CHARACTERISTICS

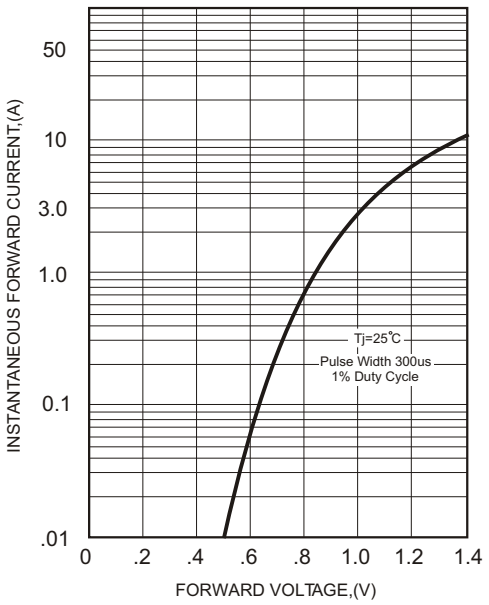


FIG.4-TYPICAL REVERSE CHARACTERISTICS