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SEMICONDUCTOR



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PLED

MSB30A THRU MBS30M

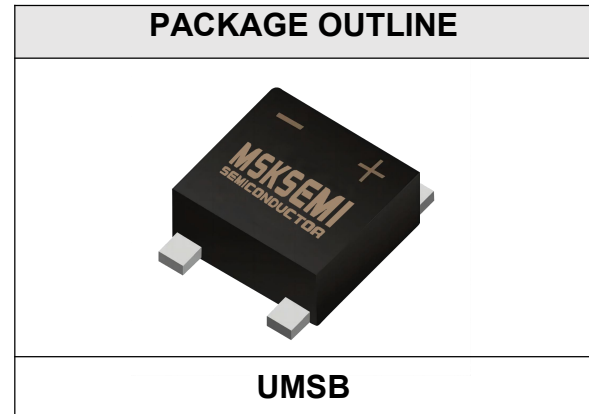
Product specification

FEATURES

- Glass Passivated Chip Junction
- Reverse Voltage - 50 to 1000 V
- Forward Current - 3.0 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



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	MSB30A	MSB30B	MSB30D	MSB30G	MSB30J	MSB30K	MSB30M	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)	3.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	8.0							A
I ² t Rating for Fusing (1ms < t < 8.3ms)	42							A ² S
Maximum Forward Voltage Drop per Bridge Element at 3.0A	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)	30							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 (MSB30A THRU MBS30M)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

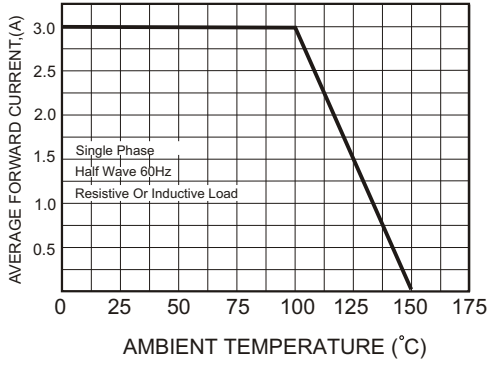


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

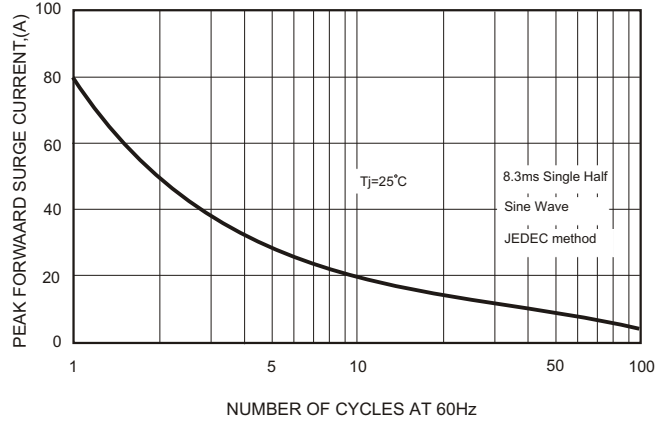


FIG.3-TYPICAL FORWARD CHARACTERISTICS

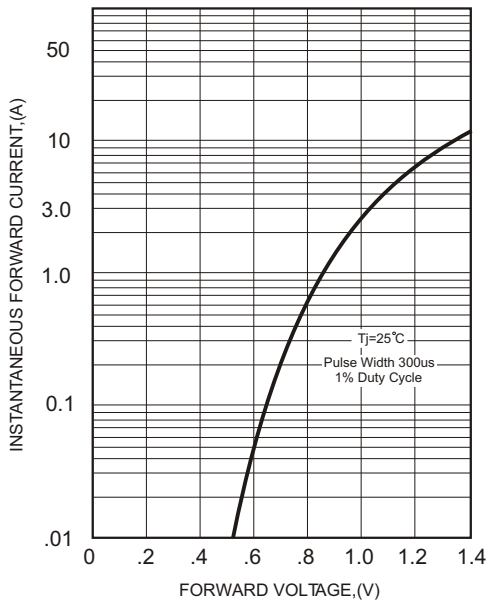
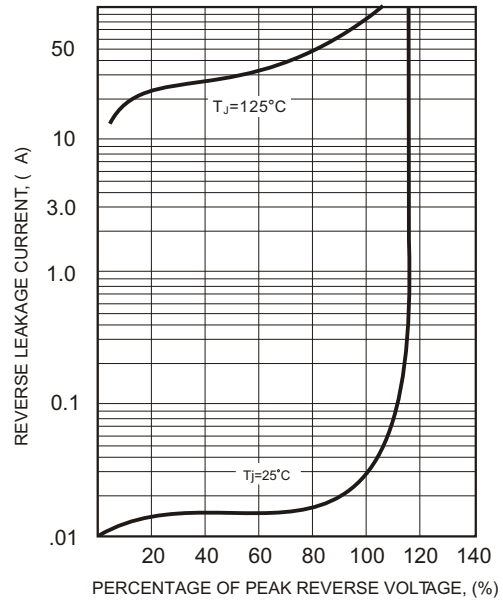
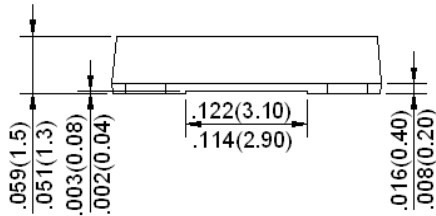
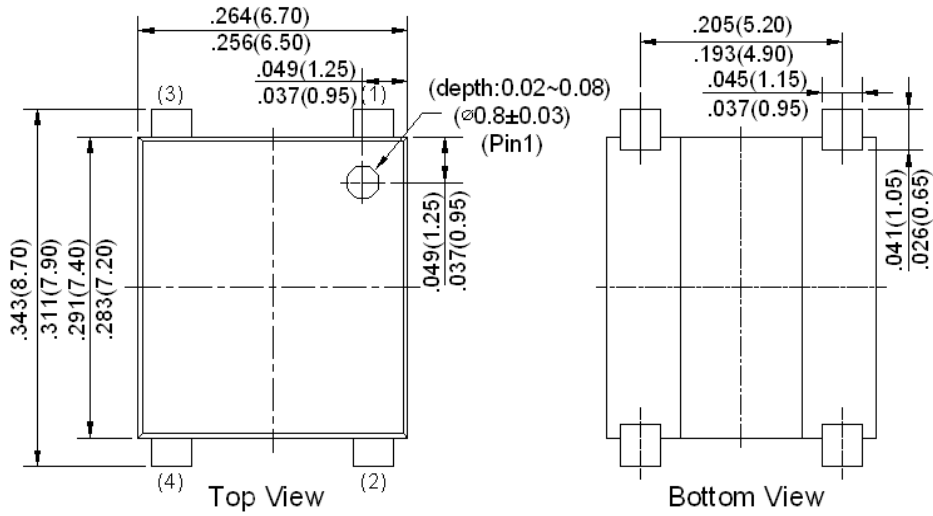


FIG.4-TYPICAL REVERSE CHARACTERISTICS

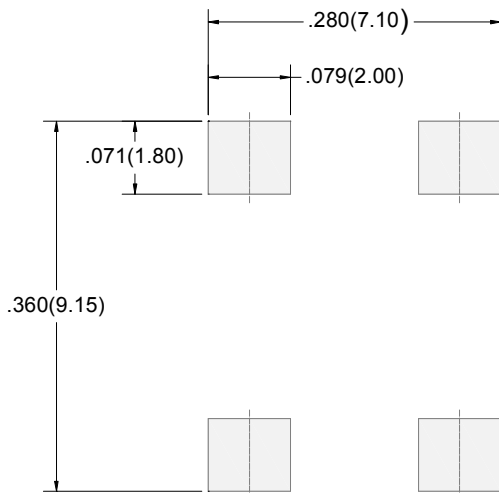


UMSB Package Outline Dimensions



Dimensions in inches and (millimeters)

UMSB Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm.
3. The pad layout is for reference purposes only.

REEL SPECIFICATION

P/N	PKG	QTY
MSB30A THRU MBS30M	UMSB	3000

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