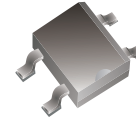


## MB2S-G Thru. MB10S-G

Reverse Voltage: 200 to 1000 Volts

Forward Current: 0.8 Amp

RoHS Device

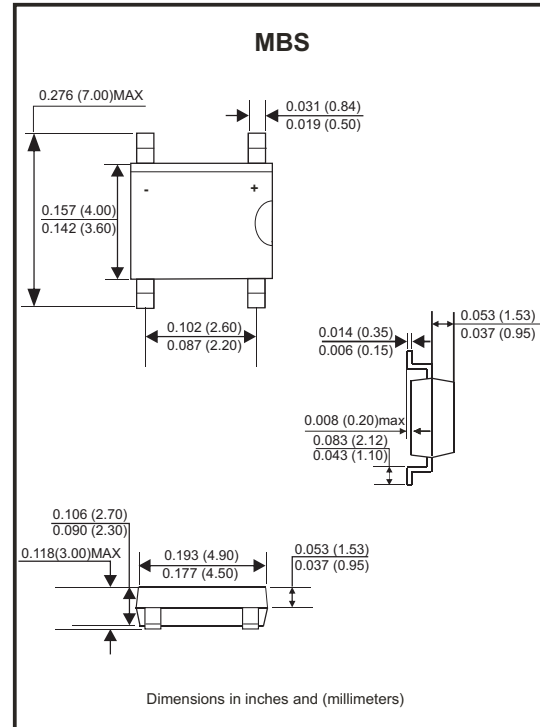


### Features

- Ideal for printed circuit board
- High temperature soldering guaranteed:  
260°C / 10 seconds /9.5mm  
Lead length at 5 lbs.,(2.3kg) tension.

### Mechanical data

- Case: Molded plastic.
- Lead: Solder plated.
- Polarity: As marked.
- Weight:0.13 gram(approx.).



### Maximum Rating And Electrical Characteristics

Rating at TA=25°C, unless otherwise noted.  
Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

| Parameter  | Symbol                 | MB2S-G      | MB4S-G | MB6S-G | MB8S-G | MB10S-G | Unit |
|--|------------------------|-------------|--------|--------|--------|---------|------|
| Maximum Recurrent Peak Reverse Voltage   | V <sub>RRM</sub>       | 200         | 400    | 600    | 800    | 1000    | V    |
| Maximum RMS Voltage  | V <sub>RMS</sub>       | 140         | 280    | 420    | 560    | 700     | V    |
| Maximum DC Blocking Voltage  | V <sub>DC</sub>        | 200         | 400    | 600    | 800    | 1000    | V    |
| Maximum Average Forward Recurrent Current  | I <sub>(AV)</sub>      | 0.8         |        |        |        |         | A    |
| Peak Forward Surge Current, 8.3mS Single Half Sine-wave, Superimposed On Rated Load (JEDEC Method) | I <sub>FSM</sub>       | 35          |        |        |        |         | A    |
| Maximum Instantaneous Forward Voltage at 0.4A  | V <sub>F</sub>         | 1.0         |        |        |        |         | V    |
| Maximum DC Reverse Current<br>Rated DC Blocking Voltage per leg                                    | @T <sub>J</sub> =25°C  | 5.0         |        |        |        |         | mA   |
|  | @T <sub>J</sub> =125°C | 500         |        |        |        |         |      |
| Typical Thermal Resistance<br>(Note 1)<br>(Note 2)   | R <sub>θJA</sub>       | 70          |        |        |        |         | °C/W |
|  | R <sub>θJL</sub>       | 20          |        |        |        |         |      |
| Operating Temperature Range  | T <sub>J</sub>         | -55 to +150 |        |        |        |         | °C   |
| Storage Temperature Range  | T <sub>STG</sub>       | -55 to +150 |        |        |        |         | °C   |

Notes: 1. On aluminum substrate P.C.B. with an area of 0.8x0.8"(20x20mm) mounted on 0.05x0.05"(1.3x1.3mm) solder pad.  
2. On glass epoxy P.C.B. mounted on 0.05x0.05"(1.3x1.3mm) pads.

## Rating and Characteristic Curves (MB2S-G Thru. MB10S-G)

Fig.1 - Maximum Forward Current Derating Curve

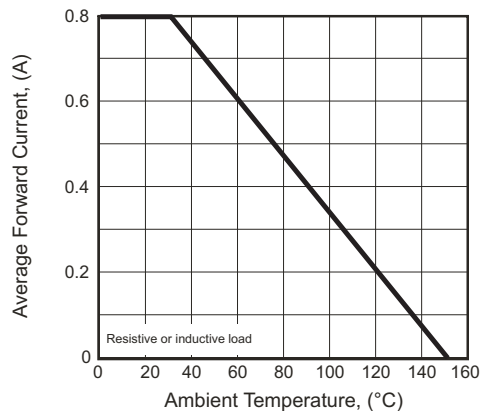


Fig.2 - Maximum Non-repetitive Forward Surge Current Per Bridge Element

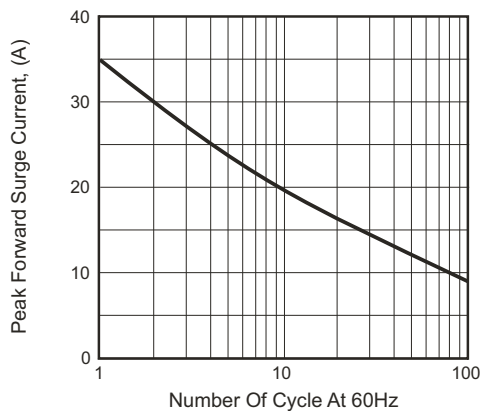


Fig.3 - Typical Instantaneous Forward Characteristics Per Bridge Element

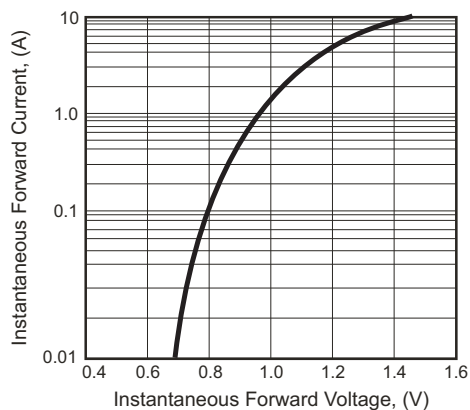
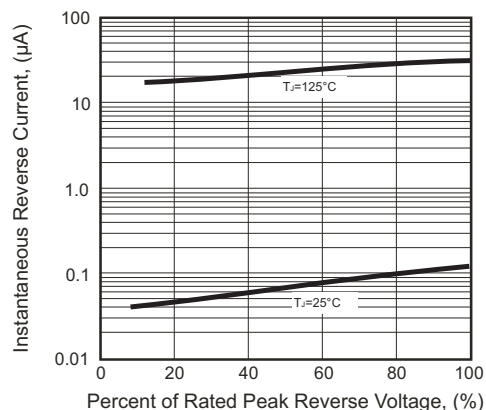
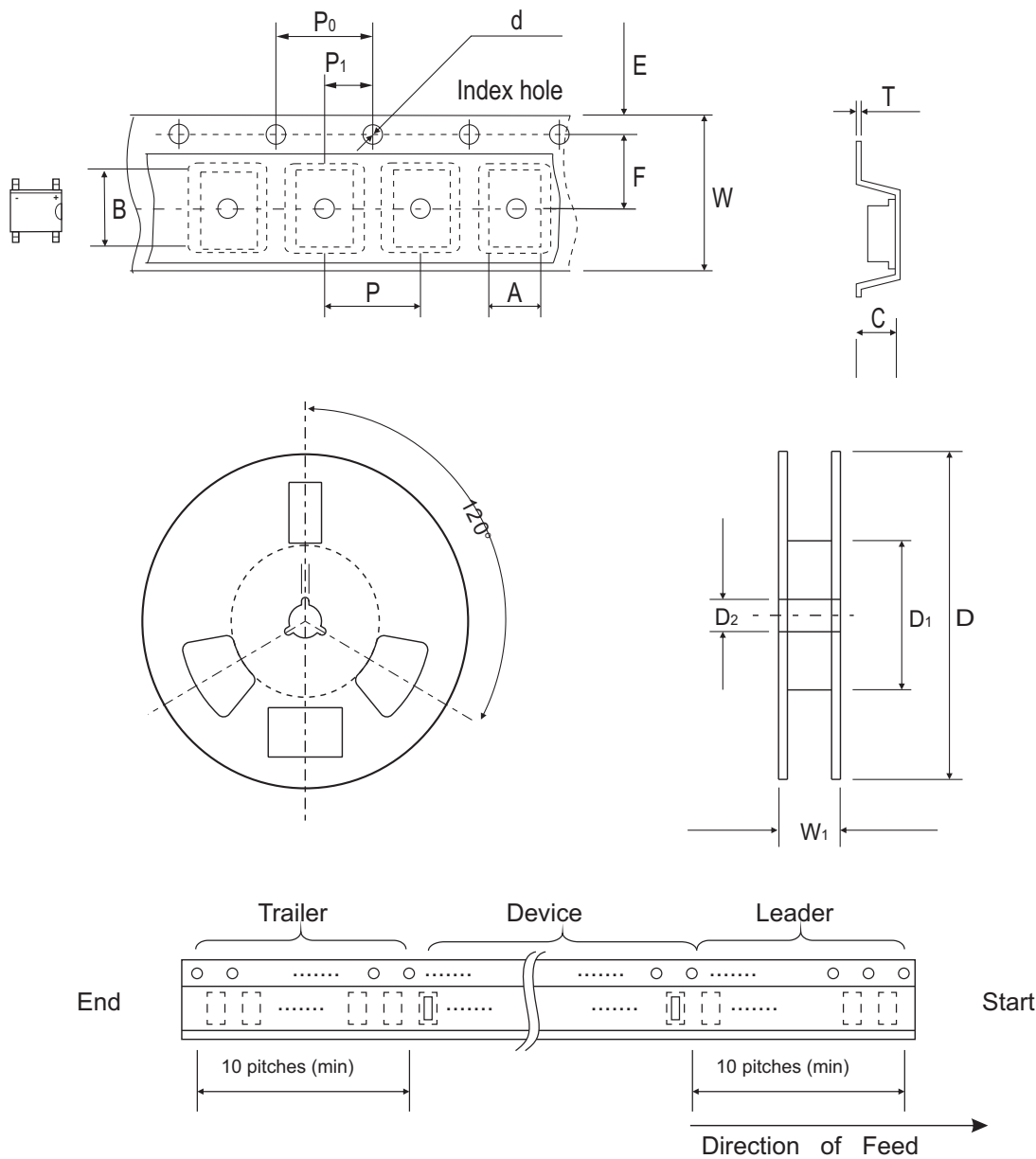


Fig.4 - Typical Reverse Characteristics Per Bridge Element



## Reel Taping Specification

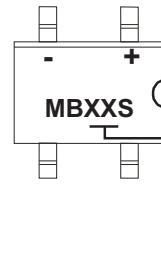


| MBS | SYMBOL | A             | B             | C             | d             | D              | D1            | D2            |
|-----|--------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|
|     | (mm)   | 5.00 ± 0.10   | 7.24 ± 0.10   | 2.95 ± 0.10   | 1.55 ± 0.05   | 330.00 ± 1.00  | 75.00 ± 1.00  | 14.00 ± 0.50  |
|     | (inch) | 0.197 ± 0.004 | 0.285 ± 0.004 | 0.116 ± 0.004 | 0.061 ± 0.002 | 12.992 ± 0.039 | 2.953 ± 0.039 | 0.551 ± 0.020 |

| MBS | SYMBOL | E             | F             | P             | P0            | P1            | W             | W1            |
|-----|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
|     | (mm)   | 1.75 ± 0.10   | 5.50 ± 0.05   | 8.00 ± 0.10   | 4.00 ± 0.10   | 2.00 ± 0.05   | 12.00 ± 0.30  | 18.4 ± 0.50   |
|     | (inch) | 0.069 ± 0.004 | 0.217 ± 0.002 | 0.315 ± 0.004 | 0.157 ± 0.004 | 0.079 ± 0.002 | 0.472 ± 0.012 | 0.724 ± 0.020 |

## Marking Code

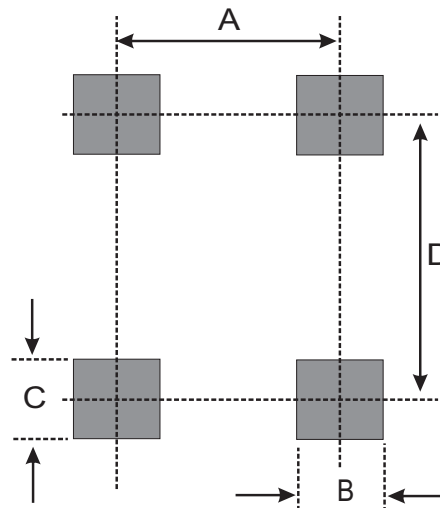
| Part Number | Marking Code |
|-------------|--------------|
| MB2S-G      | MB2S         |
| MB4S-G      | MB4S         |
| MB6S-G      | MB6S         |
| MB8S-G      | MB8S         |
| MB10S-G     | MB10S        |



X/XX = Product type marking code

## Suggested PAD Layout

| SIZE | MBS  |        |
|------|------|--------|
|      | (mm) | (inch) |
| A    | 2.40 | 0.094  |
| B    | 0.90 | 0.035  |
| C    | 1.84 | 0.072  |
| D    | 6.00 | 0.236  |



## Standard Packaging

| Case Type | Qty Per Reel | Reel Size |
|-----------|--------------|-----------|
|           | (Pcs)        | (inch)    |
| MBS       | 2,500        | 13        |