

## High Current Bridge Rectifier

### MB Series

Reverse Voltage: 50 - 1000 Volts  
 Forward Current: 10/15/25/35/50 Amp

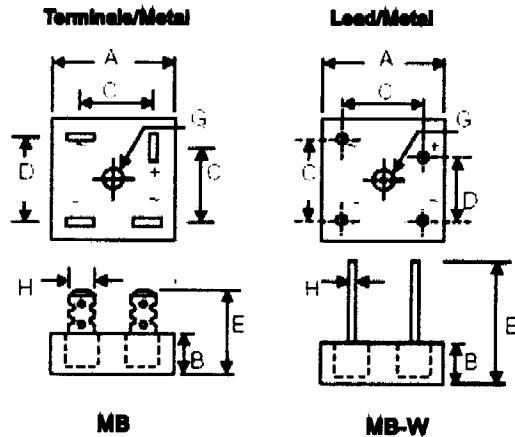
#### Features

- Surge overload 200 - 400 Amp peak
- Low forward voltage dro
- Mounting position: Any
- Electrically isolated base - 1800 Volts
- Solderable 0.25" FASTON terminals
- Materials used carries U/L recognition

#### Mechanical Data

- Case: Metal Case with Electrically Isolated Epoxy
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Mounting: Through Hole for #10 Screw
- Weight: 30 grams (approx.)

- "W" Suffix Designates Wire Leads
- No Suffix Designates Faston Terminals

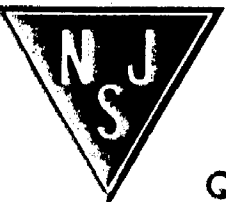


| Dim                 | TERMINALS                         |       | LEAD  |       |
|---------------------|-----------------------------------|-------|-------|-------|
|                     | Min                               | Max   | Min   | Max   |
| A                   | 28.40                             | 28.70 | 28.40 | 28.70 |
| B                   | 10.97                             | 11.23 | 10.97 | 11.23 |
| C                   | 15.70                             | 16.70 | 17.10 | 19.10 |
| D                   | 17.50                             | 18.50 | 10.90 | 11.90 |
| E                   | 22.86                             | 25.40 | 30.50 | -     |
| G                   | Hole for #10 screw, 5.08Ø Nominal |       |       |       |
| H                   | 6.35 Typical                      |       | 0.97Ø | 1.07Ø |
| All Dimension in mm |                                   |       |       |       |

### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.  
 Resistive or inductive load 60Hz.  
 For capacitive load current by 20%

| CHARACTERISTICS   | MB          | MB  | MB  | MB  | MB  | MB  | MB   | UNIT |
|---|-------------|-----|-----|-----|-----|-----|------|------|
|   | 1005        | 101 | 102 | 104 | 106 | 108 | 1010 |      |
|   | 1505        | 151 | 152 | 154 | 156 | 158 | 1510 |      |
|   | 2505        | 251 | 252 | 254 | 256 | 258 | 2510 |      |
|   | 3505        | 351 | 352 | 354 | 356 | 358 | 3510 |      |
|   | 5005        | 501 | 502 | 504 | 506 | 508 | 5010 |      |
| Maximum Recurrent Peak Reverse Voltage  | 50          | 100 | 200 | 400 | 600 | 800 | 1000 | V    |
| Maximum RMS Bridge Input Voltage  | 35          | 70  | 140 | 280 | 420 | 560 | 700  | V    |
| Maximum Forward Voltage Drop per element at 5.0/7.5/12.5/17.5/25.0A Peak                | 1.2         |     |     |     |     |     |      | V    |
| Maximum Reverse Current at Rate DC Blocking Voltage per element @ T <sub>A</sub> = 25°C | 10          |     |     |     |     |     |      | uA   |
| Operating Temperature Range T <sub>C</sub>  | -55 to +125 |     |     |     |     |     |      | °C   |
| Storage Temperature Range T <sub>A</sub>  | -55 to +150 |     |     |     |     |     |      | °C   |



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## Maximum Ratings and Electrical Characteristics

| CHARACTERISTICS  | MB1005<br>- 1010 | MB1505<br>- 1510 | MB2505<br>- 2510 | MB3505<br>- 3510 | MB5005<br>- 5010 | UNIT |
|--|------------------|------------------|------------------|------------------|------------------|------|
| Maximum Average Forward Rectified Output Current @ $T_C = 55^\circ\text{C}$        | 10               | 15               | 25               | 35               | 50               | A    |
| Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load | 200              | 300              | 300              | 400              | 400              | A    |

NOTES: Also available on MB 10W/15W/25W/35W/50W series.

### Rating and Characteristic Curves (MB10, 15, 25, 35, 50)

Fig. 1 - Reverse Characteristics

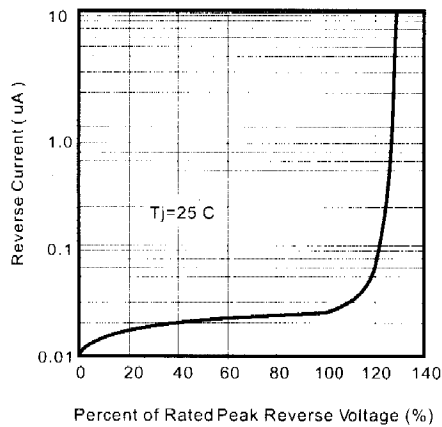


Fig. 2 - Forward Characteristics

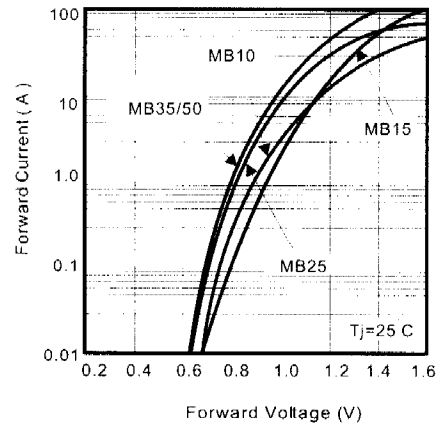


Fig. 3 - Non Repetitive Forward Surge Current

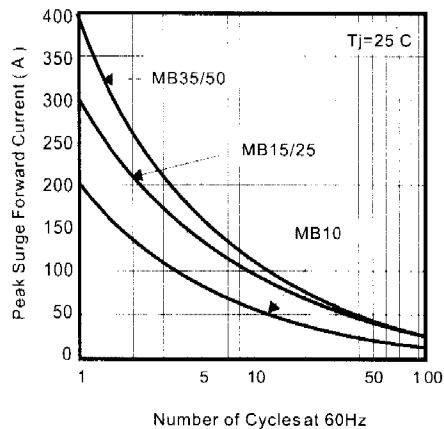


Fig. 4 - Current Derating Curve

