

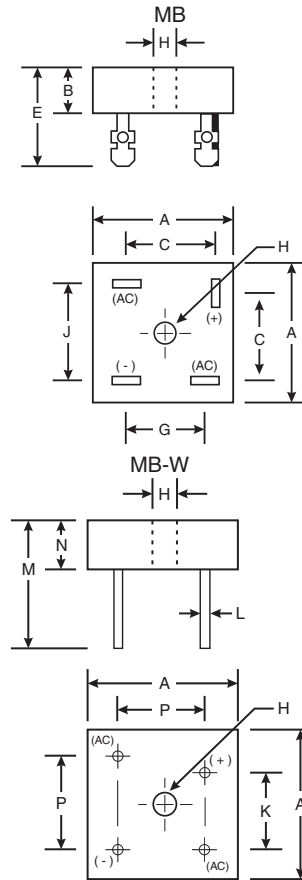
NOT RECOMMENDED FOR NEW DESIGN, USE  
GBPC15 SERIES, GBPC25 SERIES, OR GBPC35 SERIES

### Features

- High Conductivity
- Metal Case
- Superior Thermal Design
- Terminals Solderable per MIL-STD-202, Method 208
- Universal Terminals; Snap-on, Solder or P.C. Board Mounting
- **Lead Free Finish, RoHS Compliant (Date Code 0514+)**  
(Note 2)

### Mechanical Data

- Terminals: 0.25" Faston Terminals
- Case material - UL Flammability Rating Classification 94V-0
- Moisture sensitivity: Level 1 per J-STD-020C
- Approx Weight: 29 grams
- Mounting Position: Bolt Down on Heat-sink with Silicone Thermal Compound Between Bridge and Mounting Surface for Maximum Heat Transfer Efficiency
- Mounting Torque: 20 in. lb. Max.
- Polarity: Polarity Symbols Marked on Case



| Dim | Min                | Max   |
|-----|--------------------|-------|
| A   | 28.40              | 28.70 |
| B   | 10.97              | 11.23 |
| C   | 15.50              | 17.60 |
| E   | 22.86              | 25.40 |
| G   | 13.30              | 15.30 |
| H   | Hole for #10 screw |       |
|     | 4.85Ø              | 5.59Ø |
| J   | 17.10              | 19.10 |
| K   | 10.40              | 12.40 |
| L   | 0.97Ø<br>Nominal   | 1.07Ø |
| M   | 30.50              | —     |
| N   | 10.97              | 11.23 |
| P   | 17.10              | 19.10 |

### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Suffix "W" denotes wire leads

| Characteristic   | Symbol                             | -05 | -1  | -2  | -4                   | -6  | -8  | -10  | Units                     |
|--|------------------------------------|-----|-----|-----|----------------------|-----|-----|------|---------------------------|
| Maximum Recurrent Peak Reverse Voltage   | $V_{RRM}$                          | 50  | 100 | 200 | 400                  | 600 | 800 | 1000 | V                         |
| Maximum RMS Voltage  | $V_{RMS}$                          | 35  | 70  | 140 | 280                  | 420 | 560 | 700  | V                         |
| Maximum DC Blocking Voltage  | $V_{DC}$                           | 50  | 100 | 200 | 400                  | 600 | 800 | 1000 | V                         |
| Maximum Average Rectified Output Current @ $T_C = 55^\circ\text{C}$  | MB15<br>MB25<br>MB35<br>$I_{(AV)}$ |     |     |     | 15.0<br>25.0<br>35.0 |     |     |      | A                         |
| Peak Forward Surge Current Single Half Sine-Wave Superimposed on Rated Load  | MB15<br>MB25<br>MB35<br>$I_{FSM}$  |     |     |     | 300<br>300<br>400    |     |     |      | A                         |
| Maximum Instantaneous @ 7.5A Forward Voltage Drop per @ 12.5A Rated Load @ 17.5A   | MB15<br>MB25<br>MB35<br>$V_F$      |     |     |     | 1.1<br>1.1<br>1.2    |     |     |      | V                         |
| Maximum Reverse DC current at Rated DC Blocking Voltage (per Element) @ $T_A = 25^\circ\text{C}$ @ $T_A = 100^\circ\text{C}$ | $I_R$                              |     |     |     | 10<br>1.0            |     |     |      | $\mu\text{A}$<br>mA       |
| $I^2t$ rating for fusing (8.3ms)   | MB15<br>MB25<br>MB35<br>$I^2t$     |     |     |     | 373<br>373<br>664    |     |     |      | $\text{A}^2\text{s}$      |
| Typical Thermal Resistance (Note 1)  | $R_{\theta JC}$                    |     |     |     | 2.5                  |     |     |      | $^\circ\text{C}/\text{W}$ |
| Operating and Storage Temperature Range  | $T_J, T_{STG}$                     |     |     |     | -55 to +150          |     |     |      | $^\circ\text{C}$          |

Notes: 1. Thermal Resistance from junction to case

2. EC Directive 2002/95/EC (RoHS) revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see *EU Directive Annex Notes 5 and 7.*

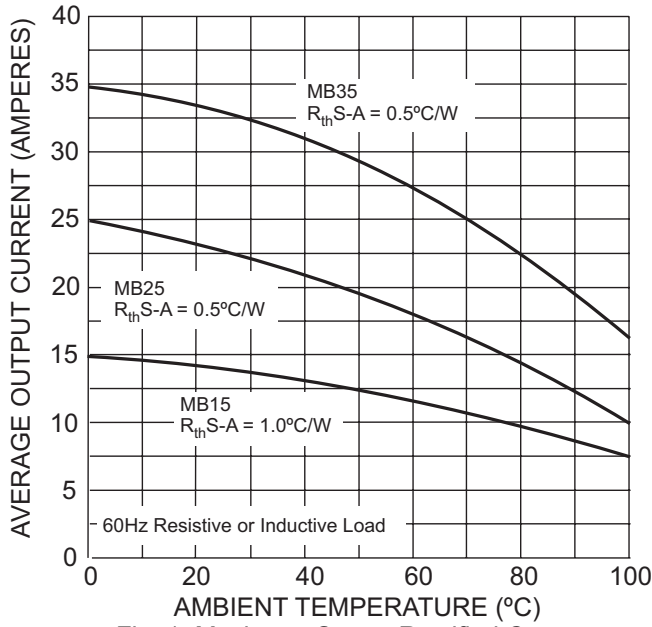


Fig. 1 Maximum Output Rectified Current

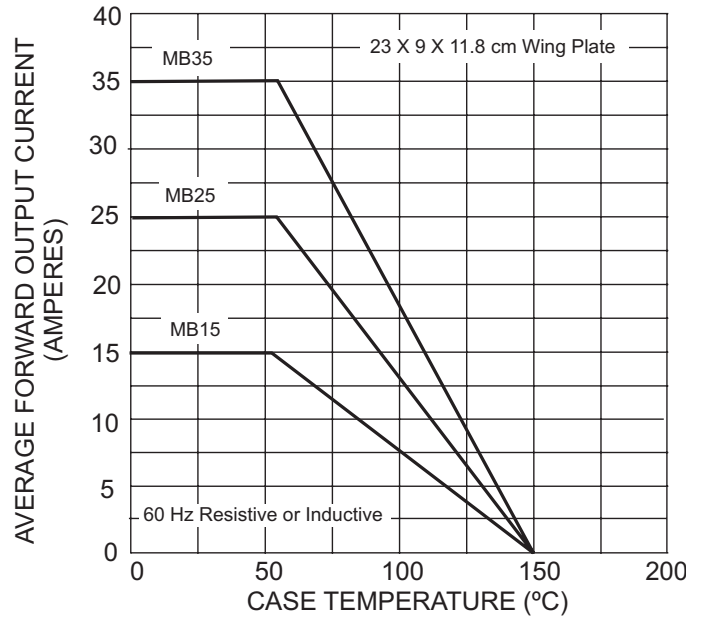


Fig. 2 Maximum Output Rectified Current

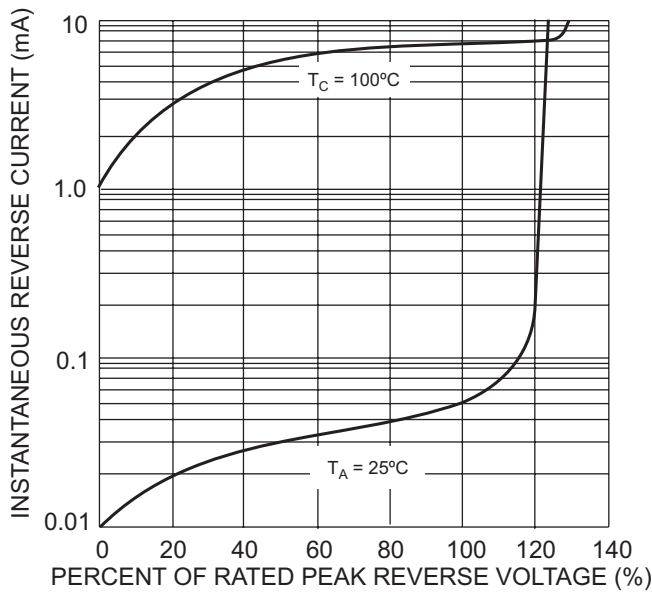


Fig. 3 Typical Reverse Characteristics

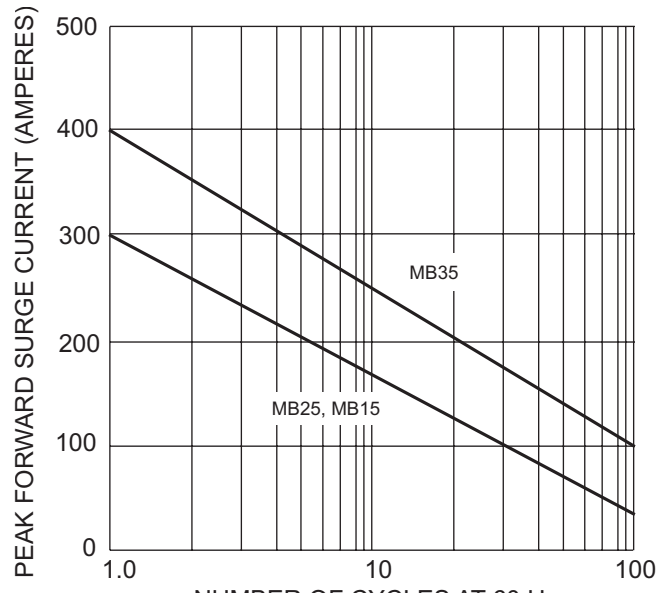


Fig. 4 Maximum Non-Repetitive Peak Forward Surge current

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**Ordering Information** (Note 3)

| Device  | Packaging | Shipping |
|---------|-----------|----------|
| MB1505  | MB        | 100/Bulk |
| MB151   | MB        | 100/Bulk |
| MB152   | MB        | 100/Bulk |
| MB154   | MB        | 100/Bulk |
| MB156   | MB        | 100/Bulk |
| MB158   | MB        | 100/Bulk |
| MB1510  | MB        | 100/Bulk |
| MB1505W | MB-W      | 100/Bulk |
| MB151W  | MB-W      | 100/Bulk |
| MB152W  | MB-W      | 100/Bulk |
| MB154W  | MB-W      | 100/Bulk |
| MB156W  | MB-W      | 100/Bulk |
| MB158W  | MB-W      | 100/Bulk |
| MB1510W | MB-W      | 100/Bulk |
| MB2505  | MB        | 100/Bulk |
| MB251   | MB        | 100/Bulk |
| MB252   | MB        | 100/Bulk |
| MB254   | MB        | 100/Bulk |
| MB256   | MB        | 100/Bulk |
| MB258   | MB        | 100/Bulk |
| MB2510  | MB        | 100/Bulk |
| MB2505W | MB-W      | 100/Bulk |
| MB251W  | MB-W      | 100/Bulk |
| MB252W  | MB-W      | 100/Bulk |
| MB254W  | MB-W      | 100/Bulk |
| MB256W  | MB-W      | 100/Bulk |
| MB258W  | MB-W      | 100/Bulk |
| MB2510W | MB-W      | 100/Bulk |
| MB3505  | MB        | 100/Bulk |
| MB351   | MB        | 100/Bulk |
| MB352   | MB        | 100/Bulk |
| MB354   | MB        | 100/Bulk |
| MB356   | MB        | 100/Bulk |
| MB358   | MB        | 100/Bulk |
| MB3510  | MB        | 100/Bulk |
| MB3505W | MB-W      | 100/Bulk |
| MB351W  | MB-W      | 100/Bulk |
| MB352W  | MB-W      | 100/Bulk |
| MB354W  | MB-W      | 100/Bulk |
| MB356W  | MB-W      | 100/Bulk |
| MB358W  | MB-W      | 100/Bulk |
| MB3510W | MB-W      | 100/Bulk |

Notes: 3. For packaging details, visit our website at <http://www.diodes.com/datasheets/ap2008.pdf>

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