

Micro Commercial Components 20736 Marilla Street Chatsworth CA 91311

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# MBR1020F THRU MBR10100F

10 Amp Schottky Barrier Rectifier 20 to 100 Volts

### **Features**

- Low Power Loss
- High Efficiency
- Low Forward Voltage, High Current Capability
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Marking : type number

## Maximum Ratings

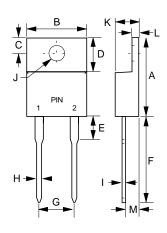
- Operating Junction Temperature: -50°C to +150°C
- Storage Temperature: -50°C to +150°C

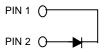
| MCC       | Maximum      | Maximum              | Maximum |
|-----------|--------------|----------------------|---------|
| Catalog   | Recurrent    | RMS                  | DC      |
| Number    | Peak Reverse | Peak Reverse Voltage |         |
|           | Voltage      | _                    | Voltage |
| MBR1020F  | 20V          | 14V                  | 20V     |
| MBR1030F  | 30V          | 21V                  | 30V     |
| MBR1040F  | 40V          | 26V                  | 40V     |
| MBR1050F  | 50V          | 35V                  | 50V     |
| MBR1060F  | 60V          | 42V                  | 60V     |
| MBR1080F  | 80V          | 56V                  | 80V     |
| MBR1090F  | 90V          | 63V                  | 90V     |
| MBR10100F | 100V         | 80V                  | 100V    |

#### Electrical Characteristics @ 25°C Unless Otherwise Specified

| rectificational actoristics @ 25 c biffess other wise specific             |                  |                      |   |  |  |  |
|--|------------------|----------------------|---|--|--|--|
| Average Forward<br>Current   | $I_{F(AV)}$      | 10 A                 | T <sub>C</sub> = 100°C                          |  |  |  |
| Peak Forward Surge<br>Current  | I <sub>FSM</sub> | 150A                 | 8.3ms, half sine                                |  |  |  |
| Maximum Instantaneous Forward Voltage 1020F-1040F 1050F-1060F 1080F-10100F | V <sub>F</sub>   | .55V<br>.75V<br>.85V | T <sub>J</sub> = 25°C<br>I <sub>FM</sub> = 10A; |  |  |  |
| Maximum DC<br>Reverse Current At<br>Rated DC Blocking<br>Voltage           | I <sub>R</sub>   | 0.5mA<br>50mA        | T <sub>C</sub> = 25°C<br>T <sub>C</sub> = 100°C |  |  |  |

### **ITO-220AC**





| DIMENSIONS |          |        |   |        |  |  |  |
|------------|----------|--------|---|--------|--|--|--|
| INCHES     |          | MM     |   |        |  |  |  |
| MIN        | MAX      | MIN    | MAX   |        |  |  |  |
| .583       | .606     | 14.80  | 15.40   |        |  |  |  |
|            | .406     |        | 10.30   |        |  |  |  |
| .100       | .112     | 2.55   | 2.85  |        |  |  |  |
| .248       | .272     | 6.30   | 6.90  |        |  |  |  |
|            | .161     |        | 4.10  |        |  |  |  |
| .512       | .543     | 13.00  | 13.80   |        |  |  |  |
| .200       |          | 5.10   |   |        |  |  |  |
|            | .035     |        | 0.90  |        |  |  |  |
|            | .032     |        | 0.80  |        |  |  |  |
| .118       | .134     | 3.00   | 3.40  | Ø      |  |  |  |
|            | .189     |        | 4.80  |        |  |  |  |
|            | .123     |        | 3.10  |        |  |  |  |
| .098       | .114     | 2.50   | 2.90  |        |  |  |  |
|            | MIN .583 | INCHES | INCHES   MIN   MAX   MIN   S83   .606   14.80     .100   .112   2.55   .248   .272   6.30     .161     .512   .543   13.00   .200   .200     .035       .032       .118   .134   3.00     .189       .123 | INCHES |  |  |  |



### MBR1020F thru MBR10100F

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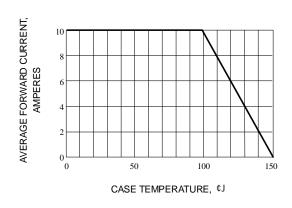


Fig. 1-FORWARD CURRENT DERATING CURVE

Fig. 2-TYPICAL INSTNATANEOUS FORWARD CHARACTERISTIC

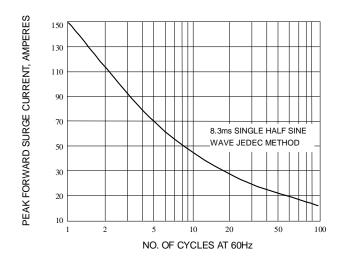


Fig. 3-MAXIMUM NON-REPETITIVE SURGE CURRENT



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