



Micro Commercial Components  
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## MBRF1020 THRU MBRF10100

### Features

- Low Power Loss
- High Efficiency
- Low Forward Voltage , High Current Capability
- High surge capacity
- Case : ITO-220AC Full Molded Plastic Package

### Maximum Ratings

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

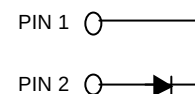
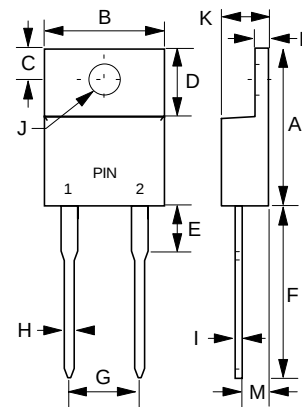
| MCC<br>Catalog<br>Number | Maximum<br>Recurrent<br>Peak Reverse<br>Voltage | Maximum<br>RMS<br>Voltage | Maximum<br>DC<br>Blocking<br>Voltage |
|--------------------------|-------------------------------------------------|---------------------------|--------------------------------------|
| MBRF1020                 | 20V                                             | 14V                       | 20V                                  |
| MBRF1030                 | 30V                                             | 21V                       | 30V                                  |
| MBRF1040                 | 40V                                             | 26V                       | 40V                                  |
| MBRF1050                 | 50V                                             | 35V                       | 50V                                  |
| MBRF1060                 | 60V                                             | 42V                       | 60V                                  |
| MBRF1080                 | 80V                                             | 56V                       | 80V                                  |
| MBRF1090                 | 90V                                             | 63V                       | 90V                                  |
| MBRF10100                | 100V                                            | 80V                       | 100V                                 |

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

|                                                                               |             |                      |                                                       |
|-------------------------------------------------------------------------------|-------------|----------------------|-------------------------------------------------------|
| Average Forward Current                                                       | $I_{F(AV)}$ | 10 A                 | $T_C = 100^\circ\text{C}$                             |
| Peak Forward Surge Current                                                    | $I_{FSM}$   | 150A                 | 8.3ms, half sine                                      |
| Maximum Instantaneous Forward Voltage<br>1020-1040<br>1050-1060<br>1080-10100 | $V_F$       | .55V<br>.75V<br>.85V | $T_J = 25^\circ\text{C}$<br>$I_{FM} = 10A;$           |
| Maximum DC Reverse Current At Rated DC Blocking Voltage                       | $I_R$       | 0.5mA<br>50mA        | $T_C = 25^\circ\text{C}$<br>$T_C = 100^\circ\text{C}$ |

### 10 Amp Schottky Barrier Rectifier 20 to 100 Volts

### ITO-220AC



| DIM | INCHES |      | MM    |       |
|-----|--------|------|-------|-------|
|     | MIN    | MAX  | MIN   | MAX   |
| A   | .583   | .606 | 14.80 | 15.40 |
| B   | ---    | .406 | ---   | 10.30 |
| C   | .100   | .112 | 2.55  | 2.85  |
| D   | .248   | .272 | 6.30  | 6.90  |
| E   | ---    | .161 | ---   | 4.10  |
| F   | .512   | .543 | 13.00 | 13.80 |
| G   | .200   |      | 5.10  |       |
| H   | ---    | .035 | ---   | 0.90  |
| I   | ---    | .032 | ---   | 0.80  |
| J   | .118   | .134 | 3.00  | 3.40  |
| K   | ---    | .189 | ---   | 4.80  |
| L   | ---    | .123 | ---   | 3.10  |
| M   | .098   | .114 | 2.50  | 2.90  |

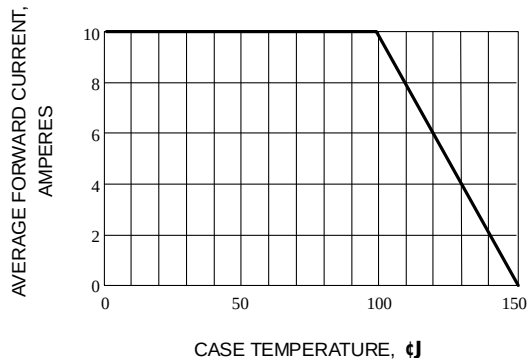


Fig. 1-FORWARD CURRENT DERATING CURVE

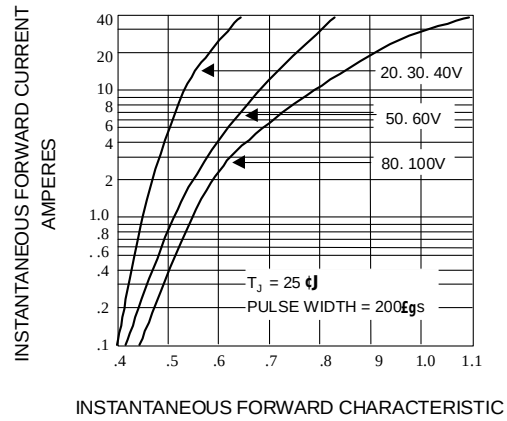


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

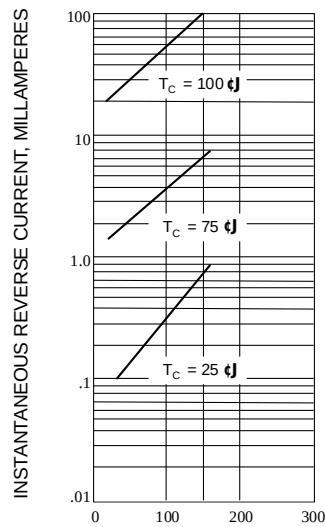


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

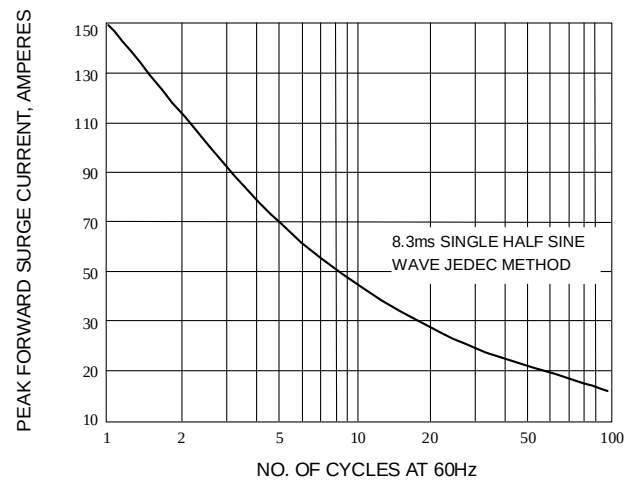


Fig. 4-MAXIMUM NON-REPETITIVE SURGE CURRENT

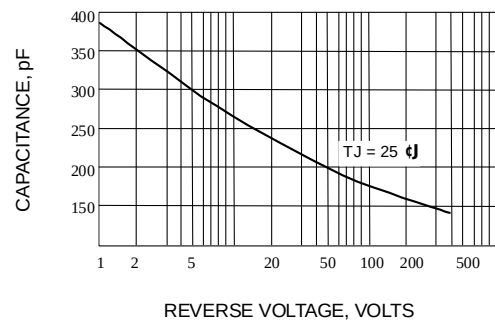


Fig. 5-TYPICAL JUNCTION CAPACITANCE