



Micro Commercial Components
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MBRF1020CT THRU MBRF10100CT

Features

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

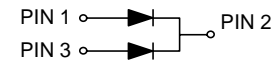
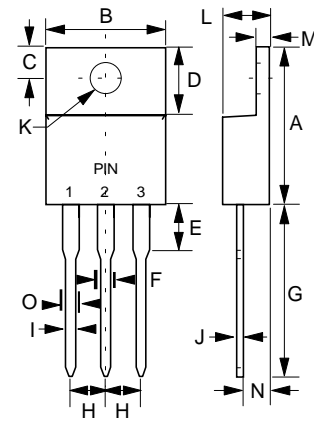
10 Amp Schottky Barrier Rectifier 20 to 100 Volts

Maximum Ratings

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

| MCC Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------|----------------|--|---------------------|-----------------------------|
| MBRF1020CT | F1020CT | 20V | 14V | 20V |
| MBRF1030CT | F1030CT | 30V | 21V | 30V |
| MBRF1040CT | F1040CT | 40V | 28V | 40V |
| MBRF1045CT | F1045CT | 45V | 31.5V | 45V |
| MBRF1050CT | F1050CT | 50V | 35V | 50V |
| MBRF1060CT | F1060CT | 60V | 42V | 60V |
| MBRF1080CT | F1080CT | 80V | 56V | 80V |
| MBRF10100CT | F10100CT | 100V | 70V | 100V |

ITO-220AB



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 1020CT-1045CT 1050CT-1060CT 1080CT-10100CT | V_F | .55V .75V .85V | $T_J = 25^\circ\text{C}$ $I_{FM} = 5A;$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 0.5mA 50mA | $T_C = 25^\circ\text{C}$ $T_C = 100^\circ\text{C}$ |

| DIM | INCHES | | MM | | NOTE |
|-----|--------|------|-------|-------|------|
| | 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 | --- | .071 | --- | 1.80 | |
| G | .512 | .543 | 13.00 | 13.80 | |
| H | --- | .100 | --- | 2.55 | |
| I | --- | .035 | --- | 0.90 | |
| J | --- | .032 | --- | 0.80 | |
| K | .118 | .134 | 3.00 | 3.40 | ∅ |
| L | --- | .189 | --- | 4.80 | |
| M | --- | .130 | --- | 3.30 | |
| N | .098 | .114 | 2.50 | 2.90 | |
| O | --- | .055 | --- | 1.40 | |

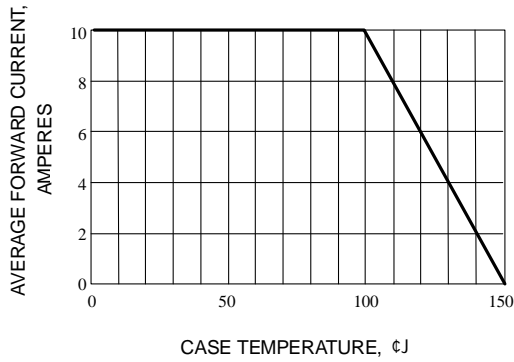


Fig. 1-FORWARD CURRENT DERATING CURVE

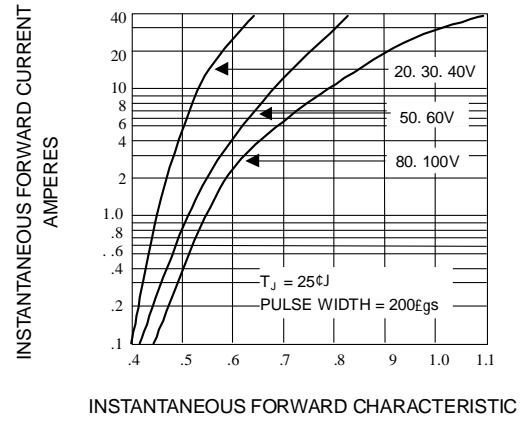


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

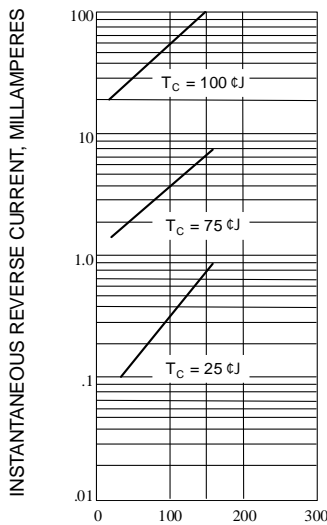


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

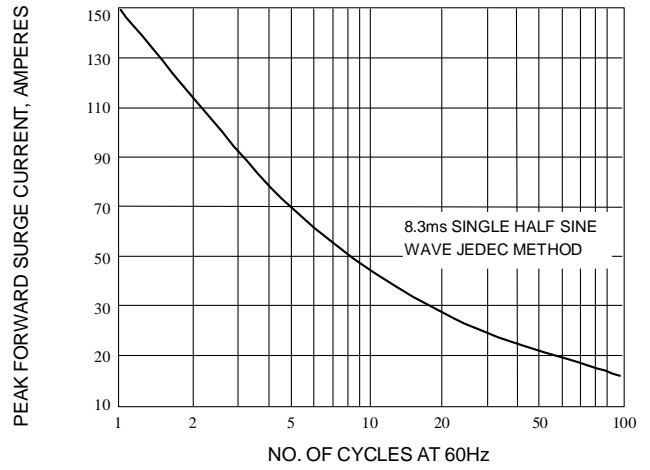


Fig. 4-MAXIMUM NON-REPETITIVE SURGE CURRENT

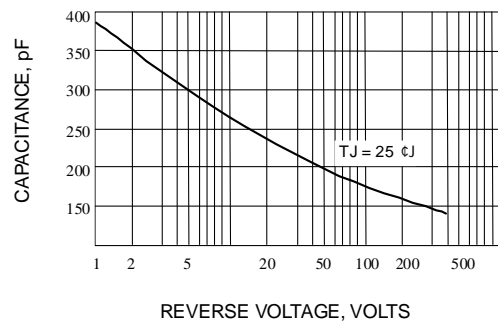


Fig. 5-TYPICAL JUNCTION CAPACITANCE