Micro Commercial Components
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# MBR1620FCT THRU MBR16100FCT

## 16 Amp Schottky Rectifier 20-100 Volts

## Features

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

## Maximum Ratings

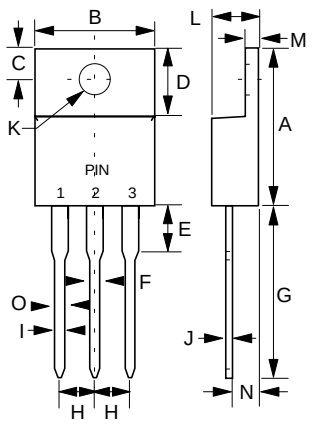
- Operating Temperature: -50℃ to +125℃
- Storage Temperature: -50℃ to +125℃
- Maximum Thermal Resistance: $R_{\theta JC}$ = 2.0℃/W

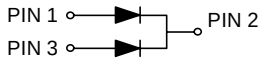
| MCC Part Number | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|---|---|---|---|
| MBR1620FCT | 20V | 14V | 20V |
| MBR1630FCT | 30V | 21V | 30V |
| MBR1640FCT | 40V | 28V | 40V |
| MBR1650FCT | 50V | 35V | 50V |
| MBR1660FCT | 60V | 42V | 60V |
| MBR1680FCT | 80V | 56V | 80V |
| MBR16100FCT | 100V | 70V | 100V |

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

| | | | |
|---|---|---|---|
| Average Forward Current | $I_{F(AV)}$ | 16 A | $T_C$ = 90℃ |
| Peak Forward Surge Current | $I_{FSM}$ | 150A | 8.3ms, half sine |
| Maximum Instantaneous Forward Voltage<br>MBR1620FCT-1640FCT<br>MBR1650FCT-1660FCT<br>MBR1680FCT16100FCT | $V_F$ | .55V<br>.75V<br>.85V | $I_{FM}$ = 8.0A per leg |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$ | 0.5mA<br>100mA | $T_C$ = 25℃<br>$T_C$ = 100℃ |

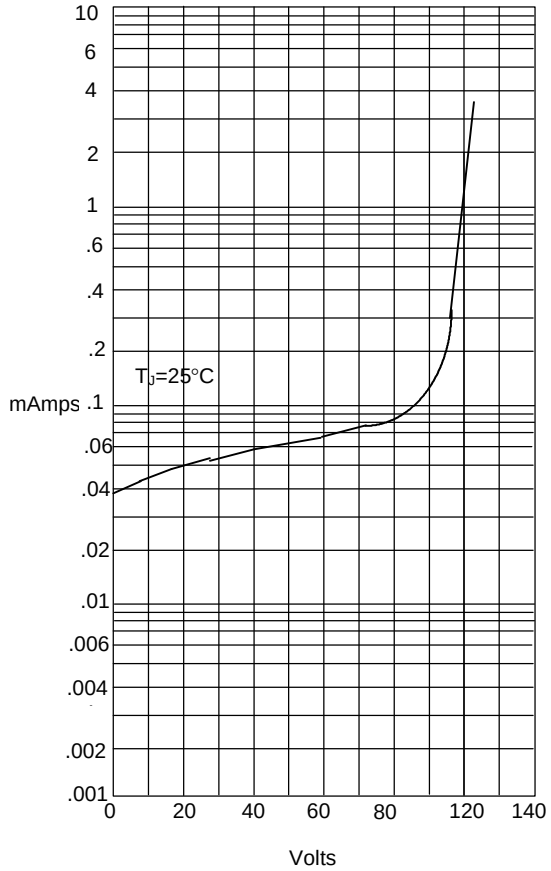
## ITO-220AB



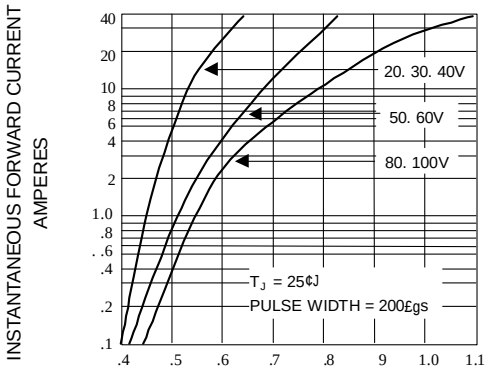

| DIMENSIONS | | | | | |
|---|---|---|---|---|---|
| | INCHES | | MM | | |
| DIM | MIN | MAX | MIN | MAX | NOTE |
| A | .583 | .606 | 14.80 | 15.40 | |
| B | --- | .406 | --- | 10.30 | |
| C | .100 | .112 | 2.55 | 2.85 | |
| D | .248 | .272 | 6.30 | 6.90 | |
| E | --- | .161 | --- | 4.10 | |
| F | --- | .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 | |

Figure 1
Typical Reverse Characteristics



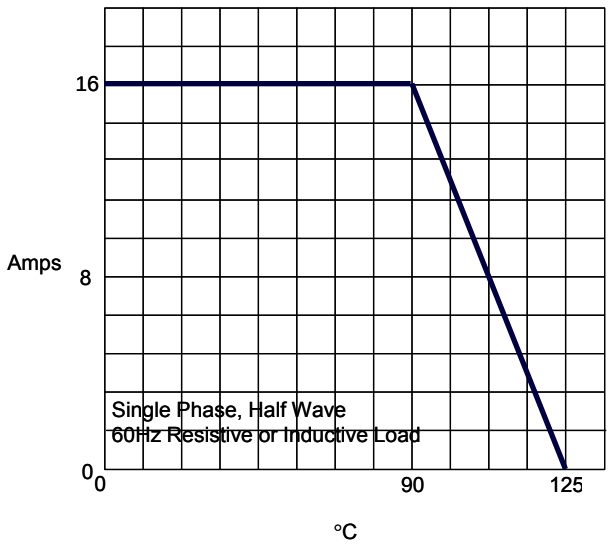

Instantaneous Reverse Leakage Current - MicroAmperes *versus*
Percent Of Rated Peak Reverse Voltage - Volts

Fig. 2-TYPICAL INSTNATANEOUS FORWARD CHARACTERISTIC



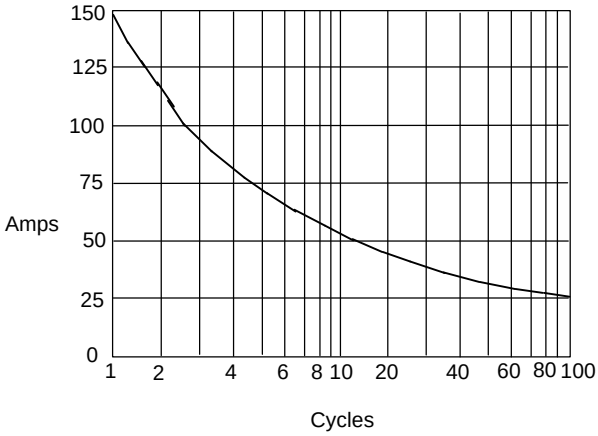

INSTANTANEOUS FORWARD CHARACTERISTIC

Figure 3
Forward Derating Curve




Average Forward Rectified Current - Amperes *versus*
Ambient Temperature -°C

Figure 4
Peak Forward Surge Current




Peak Forward Surge Current - Amperes *versus*
Number Of Cycles At 60Hz - Cycles