

#### **Features**

- Low Power Loss, High Efficiency
- High Frequency Operation
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free Available Upon Request By Adding Suffix "-HF"

## **Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance Per Leg:1.7 °C/W Junction to Case

| MCC<br>Part Number | Device<br>Marking | Maximum<br>Recurrent<br>Peak Reverse<br>Voltage | Maximum<br>RMS<br>Voltage | Maximum<br>DC<br>Blocking<br>Voltage |
|--------------------|-------------------|-------------------------------------------------|---------------------------|--------------------------------------|
| MBR30200FCT        | MBR30200FCT       | 200V                                            | 140V                      | 200V                                 |

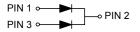
## Electrical Characteristics @ 25°C Unless Otherwise Specified

| Average Forward<br>Current                                    | I <sub>F(AV)</sub> | 30A                              | T <sub>C</sub> =105°C                                                                               |
|---------------------------------------------------------------|--------------------|----------------------------------|-----------------------------------------------------------------------------------------------------|
| Peak Forward Surge<br>Current                                 | I <sub>FSM</sub>   | 200A                             | 8.3ms,Half Sine                                                                                     |
| Maximum<br>Instantaneous Forward<br>Voltage(note2)            | V <sub>F</sub>     | 0.95V<br>1.05V<br>0.80V<br>0.92V | $I_{FM}$ =15A<br>$I_{FM}$ =30A<br>$T_{J}$ =25°C<br>$I_{FM}$ =15A<br>$I_{FM}$ =30A<br>$T_{J}$ =125°C |
| Maximum Reverse<br>Current at Working<br>Peak Reverse Voltage | I <sub>R</sub>     | 0.1mA<br>1.0mA                   | T <sub>J</sub> =25ºC<br>T <sub>J</sub> =125ºC                                                       |

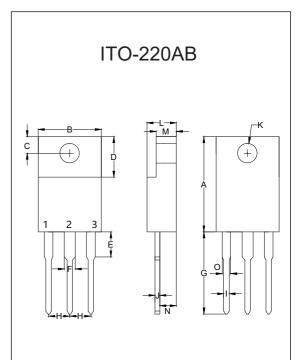
Note: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.

2. Pulse test: 300us pulse width, 1% duty cycle

### Internal Structure



# 30 Amp Schottky Barrier Rectifier 200Volts



| DIMENSIONS |        |       |       |       |      |
|------------|--------|-------|-------|-------|------|
| DIM        | INCHES |       | MM    |       | NOTE |
| DIIVI      | MIN    | MAX   | MIN   | MAX   | NOTE |
| Α          | 0.567  | 0.642 | 14.40 | 16.30 |      |
| В          |        | 0.421 |       | 10.70 |      |
| С          | 0.085  | 0.128 | 2.15  | 3.25  |      |
| D          | 0.248  | 0.272 | 6.30  | 6.90  |      |
| Е          |        | 0.177 |       | 4.50  |      |
| F          |        | 0.071 |       | 1.80  |      |
| G          | 0.500  | 0.539 | 12.70 | 14.20 |      |
| Н          | 0.100  |       | 2.55  |       |      |
| I          |        | 0.035 |       | 0.90  |      |
| J          |        | 0.032 |       | 0.80  |      |
| K          | 0.102  | 0.150 | 2.60  | 3.80  | Ф    |
| L          |        | 0.201 |       | 5.10  |      |
| М          |        | 0.140 |       | 3.56  | ·    |
| N          | 0.083  | 0.126 | 2.10  | 3.20  |      |
| 0          |        | 0.071 |       | 1.80  | -    |



## **Curve Characteristics**

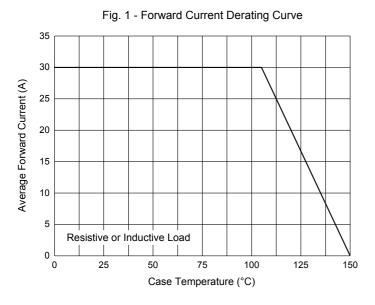
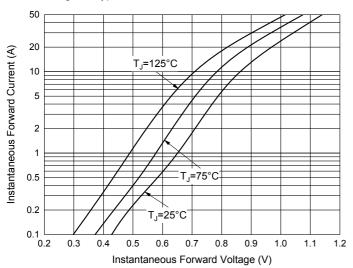


Fig. 3 - Typical Instantaneous Forward Characteristics



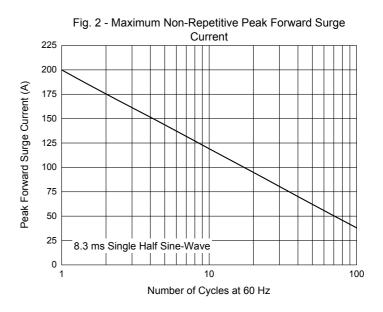
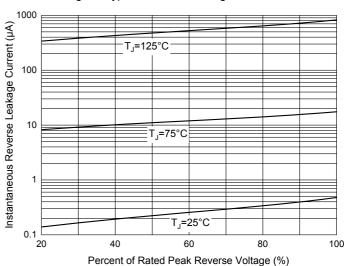


Fig. 4 - Typical Reverse Leakage Characteristics





## **Ordering Information**

| Device         | Packing                                |  |
|----------------|----------------------------------------|--|
| Part Number-BP | Bulk:50pcs/Tube,1Kpcs/Box,5Kpcs/Carton |  |

Note: Adding "-HF" Suffix For Halogen Free, eg. Part Number-BP-HF

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