

#### **Features**

- Lead Free Finish/RoHS Compliant(Note 1)("P" Suffix Designates Compliant. See Ordering Information)
- Low Forward Voltage Drop
- High Junction Temperature Capability
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Epoxy Meets UL 94 V-0 Flammability Rating

## **Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +175°C
- Storage Temperature Range: -55°C to +175°C
- Typical Thermal Resistance: 2.0°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 |
|--------------------|-------------------|---|---------------------------|--------------------------------------|
| MBR5200HL          | MBR5200HL         | 200V  | 140V                      | 200V                                 |

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

| Average Forward<br>Current                              | I <sub>F(AV)</sub> | 5A                      | T <sub>C</sub> =165°C   |
|---|--------------------|-------------------------|---|
| Peak Forward Surge<br>Current                           | I <sub>FSM</sub>   | 150A                    | 8.3ms,Half Sine   |
| Maximum<br>Instantaneous<br>Forward Voltage             | V <sub>F</sub>     | 0.85V(Max)<br>0.7V(Max) | I <sub>FM</sub> =5A,T <sub>A</sub> =25°C<br>I <sub>FM</sub> =5A,T <sub>A</sub> =125°C |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I <sub>R</sub>     | 0.01mA<br>5mA           | T <sub>A</sub> =25°C;<br>T <sub>A</sub> =125°C  |
| Typical Junction<br>Capacitance                         | С                  | 150pF                   | Measured at<br>1.0MHz, V <sub>R</sub> =4.0V   |

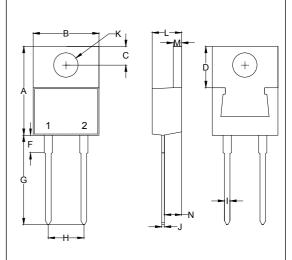
Note: 1. High Temperature Solder Exemption Applied, See EU Directive Annex 7a.

#### Internal Structure:



# 5 Amp Schottky Barrier Rectifier 200 Volts





| DIMENSIONS |        |       |       |       |      |  |
|------------|--------|-------|-------|-------|------|--|
| DIM        | INCHES |       | MM    |       | NOTE |  |
| Dilvi      | MIN    | MAX   | MIN   | MAX   | NOTE |  |
| Α          | 0.560  | 0.625 | 14.22 | 15.88 |      |  |
| В          | 0.380  | 0.420 | 9.65  | 10.67 |      |  |
| С          | 0.100  | 0.135 | 2.54  | 3.43  |      |  |
| D          | 0.230  | 0.270 | 5.84  | 6.86  |      |  |
| F          |        | 0.250 |       | 6.35  |      |  |
| G          | 0.500  | 0.580 | 12.70 | 14.73 |      |  |
| Н          | 0.190  | 0.210 | 4.83  | 5.33  |      |  |
| I          | 0.020  | 0.045 | 0.51  | 1.14  |      |  |
| J          | 0.012  | 0.025 | 0.30  | 0.64  |      |  |
| K          | 0.139  | 0.161 | 3.53  | 4.09  | Ф    |  |
| L          | 0.140  | 0.190 | 3.56  | 4.83  |      |  |
| M          | 0.045  | 0.055 | 1.14  | 1.40  |      |  |
| N          | 0.080  | 0.115 | 2.03  | 2.92  |      |  |



### **Curve Characteristics**

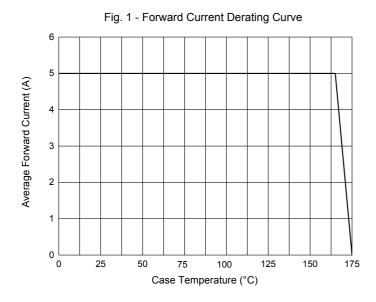


Fig. 3 - Typical Instantaneous Forward Characteristics

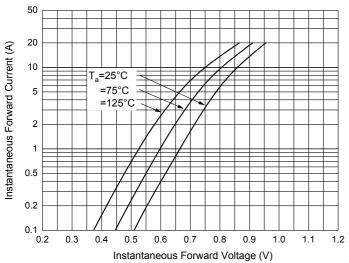


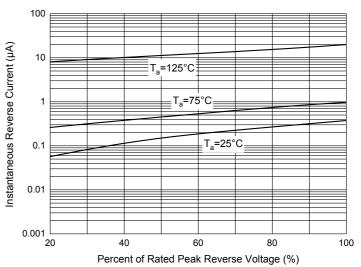
Fig. 2 - Maximum Non-Repetitive Peak Forward Surge
Current

150

8.3 ms Single Half Sine-Wave

To Number of Cycles at 60 Hz

Fig. 4 - Instantaneous Reverse 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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