

### **Features**

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Low Leakage Current
- High Current Capability, High Efficiency
- High Junction Temperature Capability
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)

# **Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +175°C
- Storage Temperature Range: -55°C to +175°C
- Thermal Resistance: 2°C/W Junction to Case

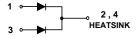
| MCC<br>Part Number | Device<br>Marking | Maximum<br>Recurrent<br>Peak Reverse<br>Voltage | Maximum<br>RMS<br>Voltage | Maximum<br>DC<br>Blocking<br>Voltage |
|--------------------|-------------------|---|---------------------------|--------------------------------------|
| MBRB10200CTS       | MBRB10200CTS      | 200V  | 140V                      | 200V                                 |

# Electrical Characteristics @ 25°C Unless Otherwise Specified

| Average Forward<br>Current                                    | I <sub>F(AV)</sub> | 10A         | T <sub>c</sub> =150°C                       |
|---|--------------------|-------------|---|
| Peak Forward Surge<br>Current                                 | I <sub>FSM</sub>   | 120A        | 8.3ms,Half Sine                             |
| Maximum<br>Instantaneous<br>Forward Voltage                   | V <sub>F</sub>     | 0.93V       | I <sub>FM</sub> =5.0A; T <sub>J</sub> =25°C |
| Maximum DC Reverse<br>Current at Rated DC<br>Blocking Voltage | I <sub>R</sub>     | 10µA<br>2mA | Tյ=25°C<br>Tյ=125°C                         |

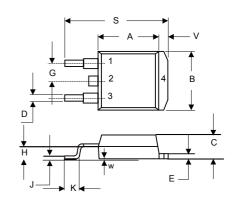
Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex Notes 7a.

# **Internal Structure**



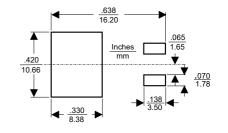
# 10 Amp High Voltage Power Schottky Barrier Rectifier 200 Volts

# D<sup>2</sup>-PAK



| DIMENSIONS |        |       |       |       |      |  |
|------------|--------|-------|-------|-------|------|--|
| DIM        | INCHES |       | MM    |       | NOTE |  |
| Dilvi      | MIN    | MAX   | MIN   | MAX   | NOTE |  |
| Α          | 0.331  | 0.370 | 8.40  | 9.40  |      |  |
| В          | 0.378  | 0.417 | 9.60  | 10.60 |      |  |
| С          | 0.165  | 0.189 | 4.20  | 4.80  |      |  |
| D          | 0.027  | 0.037 | 0.68  | 0.94  |      |  |
| E          | 0.045  | 0.055 | 1.14  | 1.40  |      |  |
| G          | 0.010  |       | 2.54  |       | TYP. |  |
| Н          | 0.096  | 0.134 | 2.43  | 3.40  |      |  |
| J          | 0.011  | 0.025 | 0.28  | 0.64  |      |  |
| K          | 0.071  | 0.131 | 1.80  | 3.32  |      |  |
| S          | 0.575  | 0.625 | 14.60 | 15.87 |      |  |
| V          | 0.042  | 0.058 | 1.07  | 1.47  |      |  |
| W          | 0.000  | 0.010 | 0.00  | 0.25  |      |  |

### **Suggested Solder Pad Layout**





# **Curve Characteristics**

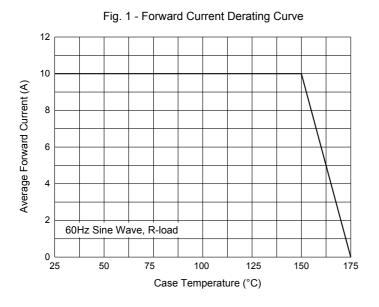
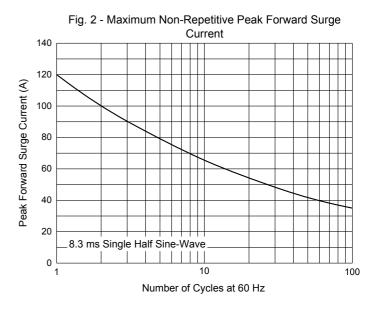
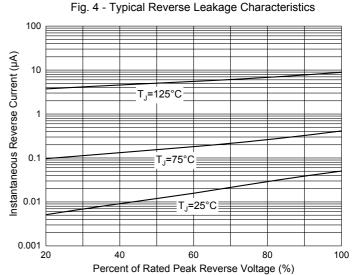


Fig. 3 - Typical Instantaneous Forward Characteristics

20
10
T<sub>J</sub>=125°C
T<sub>J</sub>=75°C

0.1
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1





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# **Ordering Information**

| Device         | Packing                |  |  |
|----------------|------------------------|--|--|
| Part Number-TP | Tape&Reel: 800pcs/Reel |  |  |
| Part Number-BP | Tube: 5Kpcs/Ctn        |  |  |

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

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