

#### **Features**

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

# **Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 4°C/W Junction to Case
- Mounting Torgue: 5 in-lbs Maximum

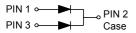
| 1   | MCC<br>Number | Device<br>Marking | Maximum<br>Recurrent<br>Peak Reverse<br>Voltage | Maximum<br>RMS<br>Voltage | Maximum<br>DC<br>Blocking<br>Voltage |
|-----|---------------|-------------------|---|---------------------------|--------------------------------------|
| MBR | 10150CT       | MBR10150CT        | 150V  | 105V                      | 150V                                 |

## Electrical Characteristics @ 25°C Unless Otherwise Specified

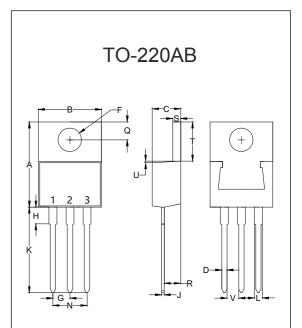
| Average Forward<br>Current                              | I <sub>F(AV)</sub> | 10A            | T <sub>C</sub> =125°C   |  |
|---|--------------------|----------------|---|--|
| Peak Forward Surge<br>Current                           | I <sub>FSM</sub>   | 120A           | 8.3ms,half sine   |  |
| Maximum<br>Instantaneous<br>Forward Voltage             | V <sub>F</sub>     | 0.92V<br>0.75V | I <sub>FM</sub> =5A<br>T <sub>J</sub> =25°C<br>I <sub>FM</sub> =5A<br>T <sub>J</sub> =125°C |  |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I <sub>R</sub>     | 10µA<br>2mA    | T <sub>J</sub> =25°C<br>T <sub>J</sub> =125°C   |  |

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

#### **Internal Structure**



# 10 Amp High Voltage Power Schottky Barrier Rectifier 150 Volts



| DIMENSIONS |        |       |       |       |      |
|------------|--------|-------|-------|-------|------|
| DIM        | INCHES |       | MM    |       | NOTE |
| וועו       | MIN    | MAX   | MIN   | MAX   | NOTE |
| Α          | 0.560  | 0.625 | 14.22 | 15.88 |      |
| В          | 0.380  | 0.429 | 9.65  | 10.90 |      |
| С          | 0.140  | 0.201 | 3.56  | 5.10  |      |
| D          | 0.020  | 0.045 | 0.51  | 1.14  |      |
| F          | 0.131  | 0.170 | 3.34  | 4.31  | Ф    |
| G          | 0.079  | 0.121 | 2.01  | 3.07  |      |
| Н          |        | 0.250 |       | 6.35  |      |
| J          | 0.011  | 0.025 | 0.28  | 0.64  |      |
| K          | 0.500  | 0.580 | 12.70 | 14.73 |      |
| L          | 0.045  | 0.060 | 1.14  | 1.52  |      |
| N          | 0.158  | 0.242 | 4.02  | 6.14  |      |
| Q          | 0.087  | 0.135 | 2.22  | 3.43  |      |
| R          | 0.080  | 0.126 | 2.04  | 3.19  |      |
| S          | 0.045  | 0.055 | 1.14  | 1.39  |      |
| Т          | 0.230  | 0.270 | 5.84  | 6.86  |      |
| U          |        | 0.050 |       | 1.27  |      |
| V          | 0.045  |       | 1.15  |       |      |



### **Curve Characteristics**

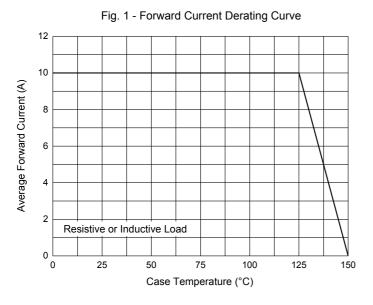
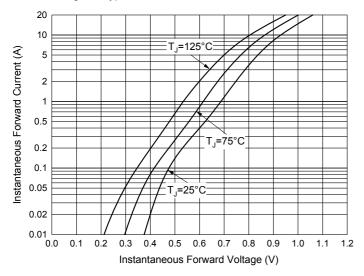


Fig. 3 - Typical Instantaneous Forward Characteristics



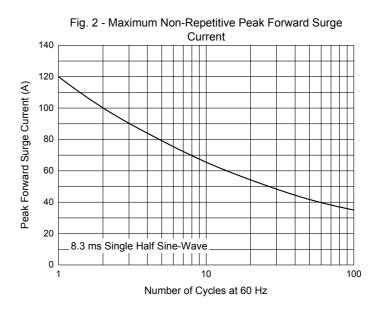
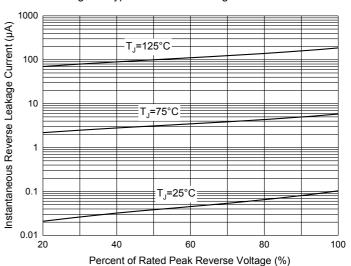


Fig. 4 - Typical Reverse Leakage Characteristics





### **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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