

## 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 Torque: 5 in-lbs Maximum

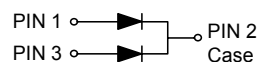
| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|----------------------------------------|---------------------|-----------------------------|
| MBR10150CT      | MBR10150CT     | 150V                                   | 105V                | 150V                        |

## Electrical Characteristics @ 25°C Unless Otherwise Specified

|                                                         |             |                |                                                                                 |
|---------------------------------------------------------|-------------|----------------|---------------------------------------------------------------------------------|
| Average Forward Current                                 | $I_{F(AV)}$ | 10A            | $T_C=125^\circ\text{C}$                                                         |
| Peak Forward Surge Current                              | $I_{FSM}$   | 120A           | 8.3ms, half sine                                                                |
| Maximum Instantaneous Forward Voltage                   | $V_F$       | 0.92V<br>0.75V | $I_{FM}=5A$<br>$T_J=25^\circ\text{C}$<br>$I_{FM}=5A$<br>$T_J=125^\circ\text{C}$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$       | 10μA<br>2mA    | $T_J=25^\circ\text{C}$<br>$T_J=125^\circ\text{C}$                               |

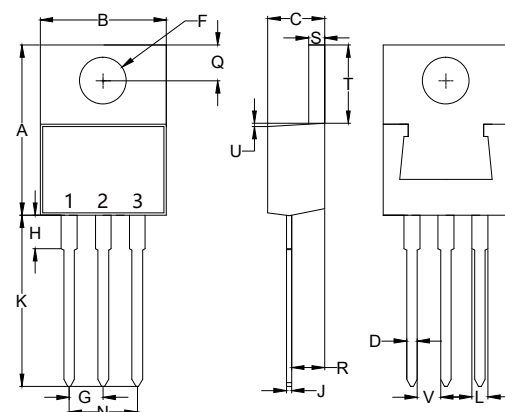
Note :1. High Temperature Solder Exemption Applied, See EU Directive Annex 7a.

## Internal Structure



# 10 Amp High Voltage Power Schottky Barrier Rectifier 150 Volts

## TO-220AB



| DIMENSIONS |        |       |       |       |      |
|------------|--------|-------|-------|-------|------|
| DIM        | INCHES |       | MM    |       | NOTE |
|            | MIN    | MAX   | MIN   | MAX   |      |
| A          | 0.560  | 0.625 | 14.22 | 15.88 |      |
| B          | 0.380  | 0.429 | 9.65  | 10.90 |      |
| C          | 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  | Φ    |
| G          | 0.079  | 0.121 | 2.01  | 3.07  |      |
| H          | -----  | 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  |      |
| T          | 0.230  | 0.270 | 5.84  | 6.86  |      |
| U          | -----  | 0.050 | ----- | 1.27  |      |
| V          | 0.045  | ----- | 1.15  | ----- |      |

## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

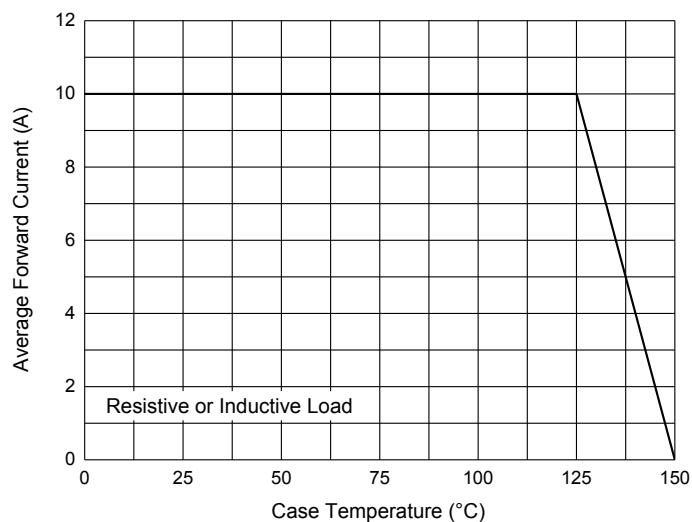


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

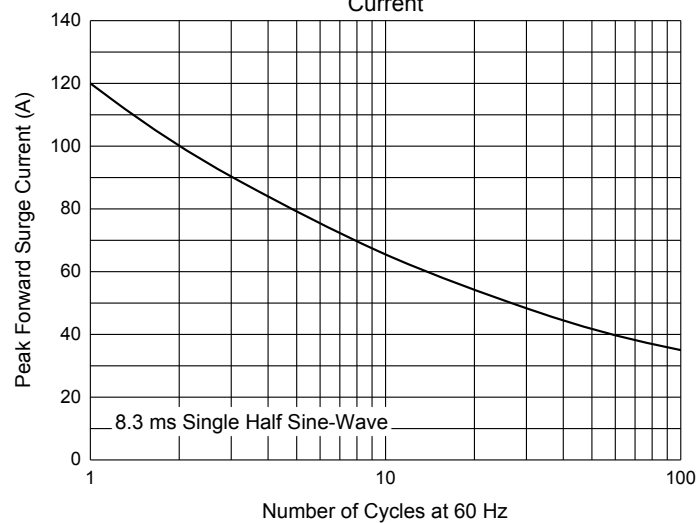


Fig. 3 - Typical Instantaneous Forward Characteristics

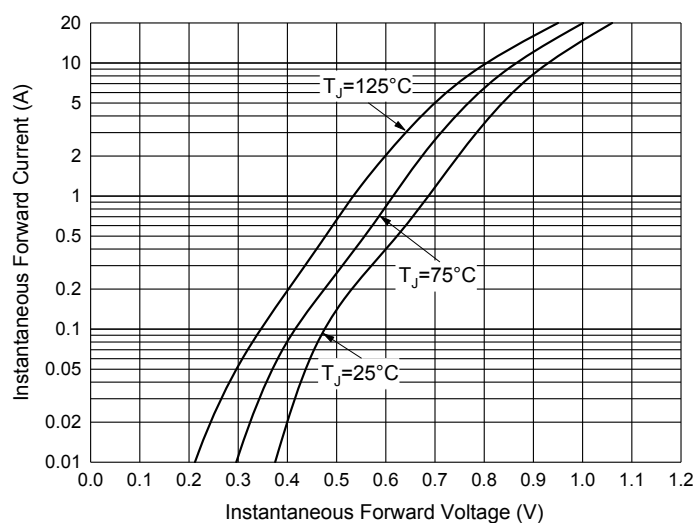
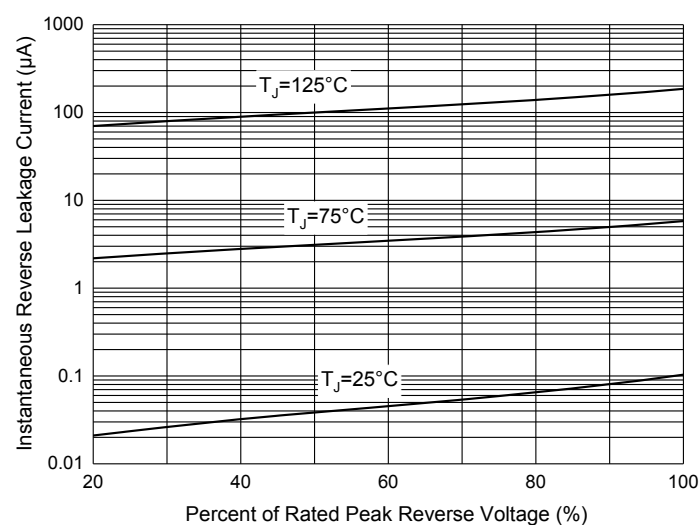


Fig. 4 - Typical Reverse Leakage Characteristics



## 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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