

**Features**

- Halogen Free. "Green" Device (Note 1)"
- Low Forward Voltage Drop
- Super Long Operating Life
- Lead Free Finish/RoHS Compliant(Note 2)("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

**Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 8 °C/W Junction to Case

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| MBR10U150       | 10U150         | 150V                                   | 105V                | 150V                        |

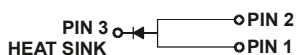
**Electrical Characteristics @ 25°C Unless Otherwise Specified**

|   |             |   |   |
|---|-------------|---|---|
| Average Forward Current                                 | $I_{F(AV)}$ | 10A                                       | $T_C=85^\circ\text{C}$  |
| Peak Forward Surge Current                              | $I_{FSM}$   | 200A                                      | 8.3ms, Half Sine  |
| Forward Voltage Drop                                    | $V_F$       | 0.84V(Max.)<br>0.79V(Typ.)<br>0.72V(Max.) | $I_F=10\text{A}; T_J=25^\circ\text{C}$<br>$I_F=10\text{A}; T_J=25^\circ\text{C}$<br>$I_F=10\text{A}; T_J=125^\circ\text{C}$ |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | $I_R$       | 0.1mA<br>20mA                             | $T_J=25^\circ\text{C}$<br>$T_J=125^\circ\text{C}$   |

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

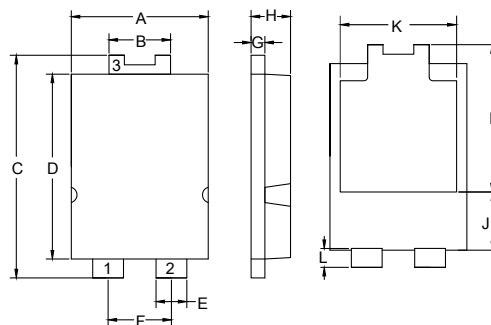
2. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.

**Internal Structure**



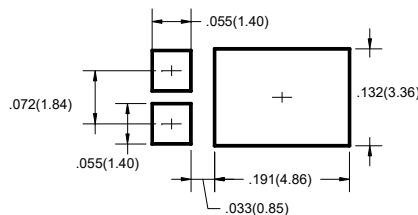
**10 Amp  
Schottky Barrier  
Rectifier  
150 Volts**

**TO-277**



| DIM | DIMENSIONS |       |      |      | NOTE |
|-----|------------|-------|------|------|------|
|     | INCHES     |       | MM   |      |      |
|     | MIN        | MAX   | MIN  | MAX  |      |
| A   | 0.154      | 0.161 | 3.90 | 4.10 |      |
| B   | 0.067      | 0.075 | 1.70 | 1.90 |      |
| C   | 0.252      | 0.260 | 6.40 | 6.60 |      |
| D   | 0.209      | 0.217 | 5.30 | 5.50 |      |
| E   | 0.031      | 0.039 | 0.80 | 1.00 |      |
| F   | 0.071      | 0.075 | 1.80 | 1.90 |      |
| G   | 0.014      | 0.018 | 0.35 | 0.45 |      |
| H   | 0.043      | 0.047 | 1.10 | 1.20 |      |
| I   | 0.161      | 0.177 | 4.10 | 4.50 |      |
| J   | 0.059      | 0.075 | 1.50 | 1.90 |      |
| K   | 0.114      | 0.134 | 2.90 | 3.40 |      |
| L   | 0.022      | 0.030 | 0.55 | 0.75 |      |

**Suggested Solder Pad Layout**



**Curve Characteristics**

Fig. 1 - Forward Current Derating Curve

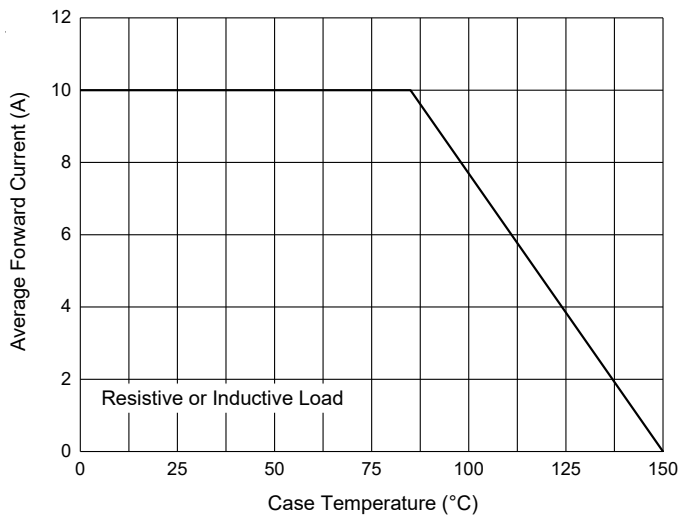


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

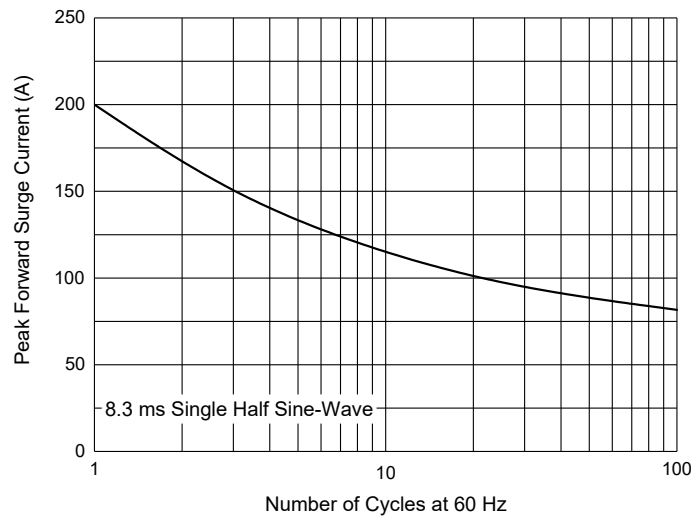


Fig. 3 - Typical Instantaneous Forward Characteristics

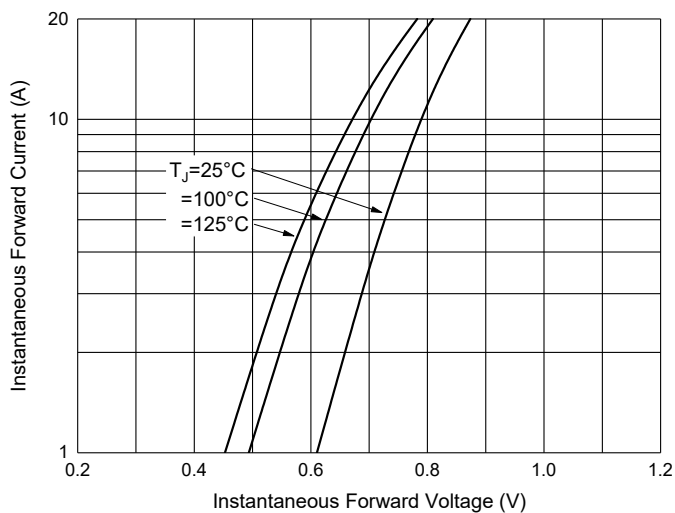
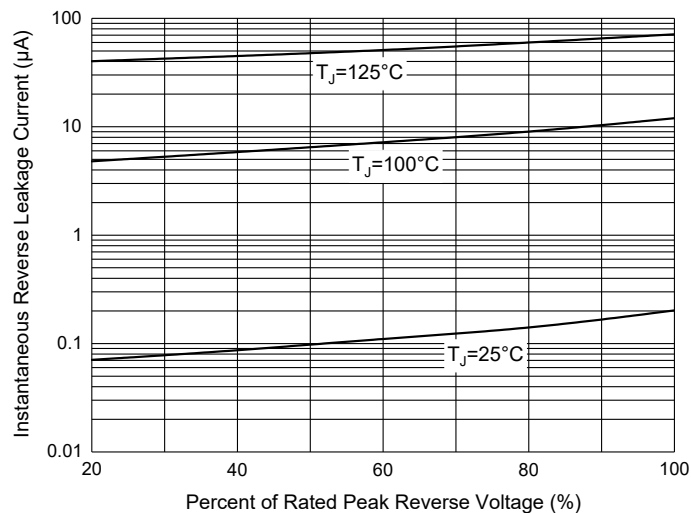


Fig. 4 - Typical Reverse Leakage Characteristics



## Ordering Information

| Device       | Packing              |
|--------------|----------------------|
| MBR10U150-TP | Tape&Reel:4Kpcs/Reel |

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