

# **Schottky Barrier Rectifier**

### **MBRB3045CT**

#### **FEATURES**

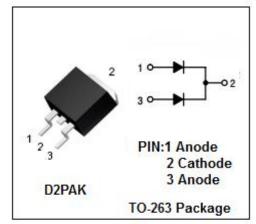
- · Low Power Loss/High Efficiency
- · High Current Capability, Low Forward Voltage Drop
- · High Surge Capacity
- · Guarding for Overvoltage protection
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

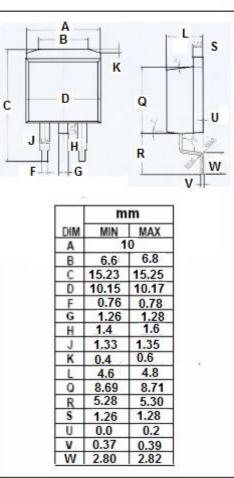


- · Case: Epoxy, Molded
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- High Temperature Soldering Guaranteed:
  250<sup>°</sup>C Max. for 10 Seconds



| SYMBOL   | PARAMETER  | VALUE    | UNIT       |
|--|--|----------|------------|
| V <sub>RRM</sub><br>V <sub>RMS</sub><br>V <sub>R</sub> | Peak Repetitive Reverse Voltage<br>RMS Voltage<br>DC Blocking Voltage                                    | 45       | V          |
| I <sub>F(AV)</sub>                                     | Average Rectified Forward Current (Per Leg)<br>(Total)   | 15<br>30 | Α          |
| I <sub>FSM</sub>                                       | Nonrepetitive Peak Surge Current<br>8.3ms single half sine-wave superimposed on<br>rated load conditions | 250      | Α          |
| I <sub>RRM</sub>                                       | Peak Repetitive Reverse Surge Current (2μS - 1Khz)   | 2        | Α          |
| TJ   | Junction Temperature   | -65~150  | $^{\circ}$ |
| T <sub>stg</sub>                                       | Storage Temperature Range  | -65~150  | ℃          |







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#### THERMAL CHARACTERISTICS

| SYMBOL              | PARAMETER                           | MAX | UNIT |
|---------------------|-------------------------------------|-----|------|
| R <sub>th j-c</sub> | Thermal Resistance,Junction to Case | 1.5 | °C/W |

### **ELECTRICAL CHARACTERISTICS**(Pulse Test: Pulse Width≤300 µ s,Duty Cycle≤1%)

| SYMBOL         | PARAMETER                             | CONDITIONS                                  | MAX  | UNIT |
|----------------|---------------------------------------|---|------|------|
| VF             | Maximum Instantaneous Forward Voltage | I <sub>F</sub> = 15A ; T <sub>C</sub> = 25℃ | 0.66 | >    |
| I <sub>R</sub> | Maximum Instantaneous Reverse Current | Rated DC Voltage, T <sub>C</sub> = 25 °C    | 50   | uA   |



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