

# **Schottky Barrier Rectifier**

## **MBR2560CT**

### **FEATURES**

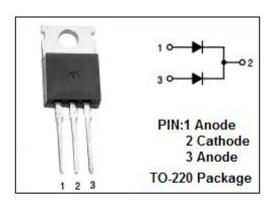
- · With TO-220 packaging
- · High junction temperature capability
- · Low forward voltage drop
- High current capability
- · Low power loss, high efficiency
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

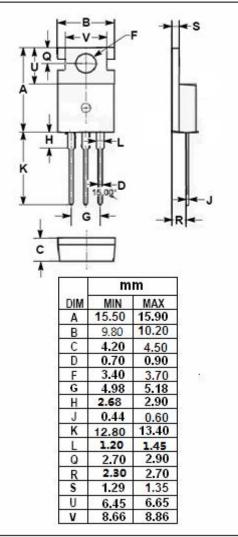
### **APPLICATIONS**

- Switching power supply
- · Free-Wheeling diodes
- · Reverse battery protection
- Center tap configuration

### ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

| SYMBOL   | PARAMETER   | VALUE   | UNI<br>T   |
|--|---|---------|------------|
| V <sub>RRM</sub><br>V <sub>RWM</sub><br>V <sub>R</sub> | Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage                              | 60      | V          |
| l <sub>F(AV)</sub>                                     | Average Rectified Forward Current@Tc=130℃   | 25      | А          |
| I <sub>FSM</sub>                                       | Nonrepetitive Peak Surge Current ( 8.3ms single half sine-wave superimposed on rated load conditions) tp=5 µ s sine | 200     | Α          |
| TJ   | Junction Temperature  | 150     | $^{\circ}$ |
| T <sub>stg</sub>                                       | Storage Temperature Range   | -65~175 | $^{\circ}$ |





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#### THERMAL CHARACTERISTICS

| SYMBOL              | PARAMETER                            | MAX | UNIT |
|---------------------|--------------------------------------|-----|------|
| R <sub>th j-c</sub> | Thermal Resistance, Junction to Case | 1.0 | °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> = 12.5A ; Tc= 25℃             | 0.75 | V    |
|                |                                       | I <sub>F</sub> = 12.5A ; Tc= 25°C            | 0.65 |      |
| I <sub>R</sub> | Maximum Instantaneous Reverse Current | V <sub>R</sub> = V <sub>RWM;</sub> Tc= 25°C  | 0.2  | mA   |
|                |                                       | V <sub>R</sub> = V <sub>RWM;</sub> Tc= 125°C | 50   |      |

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