



## Schottky Diodes

### Features

- High frequency operation
- Low forward voltage drop
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

### Typical Applications

Typical applications are in switching power supplies, converters, freewheeling diodes, and reverse battery protection.

### Mechanical Data

- **Package:** TO-220AB  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked

### ■Maximum Ratings (T<sub>a</sub>=25 Unless otherwise specified

| PARAMETER                                                                                 | SYMBOL           | UNIT             | MBRL20100CT |
|-------------------------------------------------------------------------------------------|------------------|------------------|-------------|
| Device marking code                                                                       |                  |                  | MBRL20100CT |
| Repetitive Peak Reverse Voltage                                                           | V <sub>RRM</sub> | V                | 100         |
| Average Rectified Output Current<br>@60Hz sine wave, R-load, T <sub>a</sub> =25           | I <sub>O</sub>   | A                | 20          |
| Surge(Non-repetitive)Forward Current<br>@60Hz half sine-wave, 1 cycle, T <sub>a</sub> =25 | I <sub>FSM</sub> | A                | 150         |
| Current Squared Time<br>@1ms≤t≤8.3ms, T <sub>j</sub> =25                                  | I <sup>2</sup> t | A <sup>2</sup> s | 94          |
| Storage Temperature                                                                       | T <sub>stg</sub> |                  | -55 ~ +150  |
| Junction Temperature                                                                      | T <sub>j</sub>   |                  | -55 ~ +150  |

|                                                                   |                   |    | CONDITIONS                                              | MBRL20100CT |
|-------------------------------------------------------------------|-------------------|----|---------------------------------------------------------|-------------|
| Maximum instantaneous forward voltage drop per diode              | V <sub>FM</sub>   | V  | I <sub>FM</sub> =10.0A                                  | 0.72        |
| Maximum DC reverse current at rated DC blocking voltage per diode | I <sub>RRM1</sub> | mA | V <sub>RM</sub> =V <sub>RRM</sub><br>T <sub>a</sub> =25 |             |



## MBRL20100CT

■Thermal Characteristics     $T_a=25$     Unless otherwise specified

| PARAMETER          |                           | SYMBOL | UNIT         | MBRL20100CT |
|--------------------|---------------------------|--------|--------------|-------------|
| Thermal Resistance | Between junction and case |        | $R_{\theta}$ |             |



■Outline Dimensions

