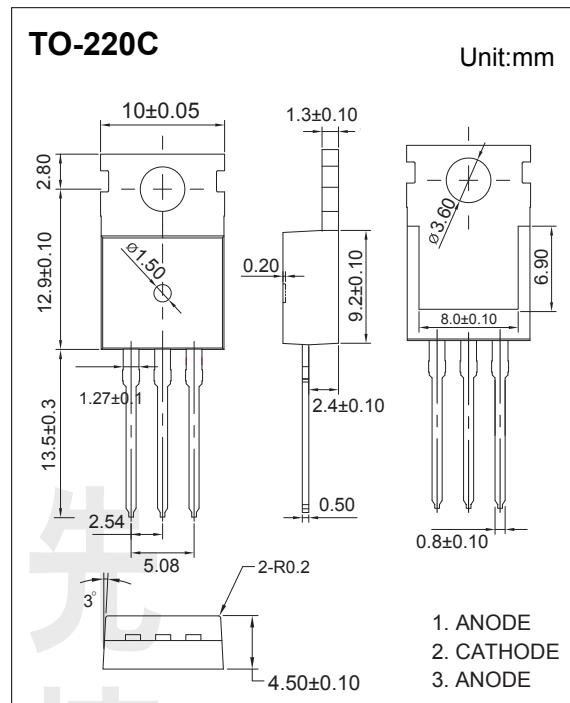
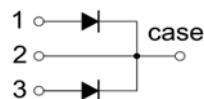


## Schottky Barrier Rectifier

### MBR20150CT

#### ■ Features

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- Low Power Loss, High Efficiency
- High Surge Capability
- High Current Capability and Low Forward Voltage Drop
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications



#### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

| Parameter  | Symbol          | Rating     |                  | Unit                      |
|--|-----------------|------------|------------------|---------------------------|
| Repetitive peak reverse voltage                            | $V_{RRM}$       | 150        |                  | V                         |
| Working peak reverse voltage                               | $V_{RWM}$       |            |                  |                           |
| DC blocking voltage  | $V_R$           |            |                  |                           |
| RMS reverse voltage  | $V_{R(RMS)}$    | 105        |                  |                           |
| Average rectified output current @ $T_c=125^\circ\text{C}$ | $I_o$           | 20         | A                |                           |
| Non-Repetitive peak forward surge current @ 8.3ms          | $I_{FSM}$       | 180        |                  |                           |
| Power dissipation  | $P_D$           | 2          |                  | W                         |
| Thermal resistance junction to ambient                     | $R_{\theta JA}$ | 50         |                  | $^\circ\text{C}/\text{W}$ |
| Junction temperature                                       | $T_J$           | 150        | $^\circ\text{C}$ |                           |
| Storage temperature  | $T_{STG}$       | -55 to 150 |                  |                           |

#### ■ Electrical Characteristics $T_a = 25^\circ\text{C}$

| Parameter                       | Symbol     | Testconditons                  | Min | Typ | Max | Unit          |
|---------------------------------|------------|--------------------------------|-----|-----|-----|---------------|
| Reverse breakdown voltage       | $V_{(BR)}$ | $I_R=1\text{mA}$               | 150 |     |     | V             |
| Reverse voltage leakage current | $I_R$      | $V_R=150\text{V}$              |     |     | 100 | $\mu\text{A}$ |
| Forward voltage                 | $V_F$      | $I_F=10\text{A}$               |     |     | 1   | V             |
|                                 |            | $I_F=20\text{A}$               |     |     | 1.2 |               |
| Typical total capacitance       | $C_t$      | $V_R=4\text{V}, f=1\text{MHz}$ |     | 100 |     | pF            |

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#### ■ Typical Characteristics

