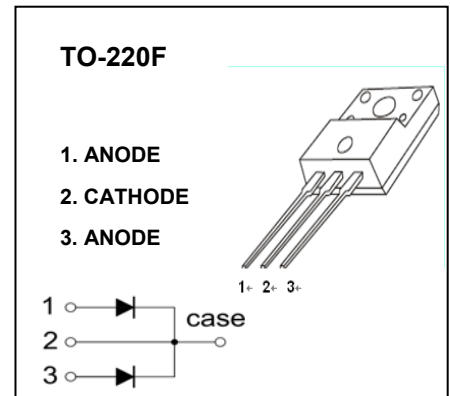


TO-220F Plastic-Encapsulate Diodes

MBR10150FCT SCHOTTKY BARRIER RECTIFIER

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



MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

| Symbol | Parameter | Value | Unit |
|-----------------|---|----------|-----------------------------|
| V_{RRM} | Peak repetitive reverse voltage | 150 | V |
| V_{RWM} | Working peak reverse voltage | | |
| V_R | DC blocking voltage | | |
| $V_{R(RMS)}$ | RMS reverse voltage | 105 | V |
| I_O | Average rectified output current | 10 | A |
| I_{FSM} | Non-Repetitive peak forward surge current 8.3ms half sine wave | 120 | A |
| P_D | Power dissipation | 2 | W |
| $R_{\theta JA}$ | Thermal resistance from junction to ambient | 50 | $^{\circ}\text{C}/\text{W}$ |
| T_j | Junction temperature | 125 | $^{\circ}\text{C}$ |
| T_{stg} | Storage temperature | -55~+150 | $^{\circ}\text{C}$ |

ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit |
|---------------------------|------------|--------------------------------|-----|-----|-----|------|
| Reverse voltage | $V_{(BR)}$ | $I_R=0.1\text{mA}$ | 150 | | | V |
| Reverse current | I_R | $V_R=150\text{V}$ | | | 0.1 | mA |
| Forward voltage | V_{F1} | $I_F=5\text{A}$ | | | 1 | V |
| | V_{F2}^* | $I_F=10\text{A}$ | | | 1 | V |
| Typical total capacitance | C_{tot} | $V_R=5\text{V}, f=1\text{MHz}$ | | 500 | | pF |

*Pulse test

Typical Characteristics

MBR10150FCT

