



MBRF10150CT

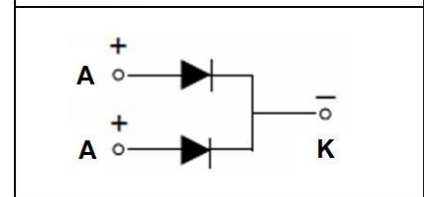
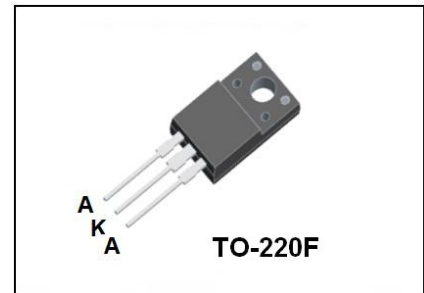
Dual High Voltage Schottky Rectifier

●Features:

- Common Cathode Structure
- Low Power Loss and High Efficiency
- Low Forward Voltage Drop
- High Surge Capability

●Application:

- High Frequency Switch
- Free Wheeling, and Polarity Protection Applications



Absolute Maximum Ratings (T_c=25°C unless otherwise noted)

| Symbol | Parameter | Value | Unit |
|--------------------|--|------------------------------|------|
| V _{RRM} | Maximum Repetitive Reverse Voltage | 150 | V |
| V _R | Maximum DC Reverse Voltage | 150 | V |
| I _{F(AV)} | Average Rectified Forward Current, T _c =120°C | 5(Per Leg) 10(Per Device) | A |
| I _{FSM} | Peak Forward Surge Current, 8.3ms Half Sine wave | 120 | A |
| T _j | Operating Junction Temperature | 150 | °C |
| T _{stg} | Storage Temperature Range | -55 to +150 | °C |

Thermal Characteristics (T_c=25°C unless otherwise noted)

| Symbol | Parameter | Max | Unit |
|------------------|--|-----|--------|
| R _{θJC} | Thermal Resistance, Junction to Case Per Leg | 4.0 | °C / W |

Electrical Characteristics (T_c=25°C unless otherwise noted)

| Symbol | Parameter | Test Conditions | Min | Max | Unit |
|------------------|------------------------------------|--|-----|------------------------------|------|
| V _{RRM} | Maximum Repetitive Reverse Voltage | I _R =100μA | 150 | | V |
| I _R | Reverse Current | V _R = 150V T _c =25°C V _R = 150V T _c =125°C | | 0.1 5 | mA |
| V _F | Forward Voltage | I _F =5A T _c =25°C I _F =5A T _c =125°C I _F =10A T _c =25°C I _F =10A T _c =125°C | | 0.92 0.82 1.02 0.92 | V |

Typical Performance Characteristics

Figure 1. Forward Current Characteristics

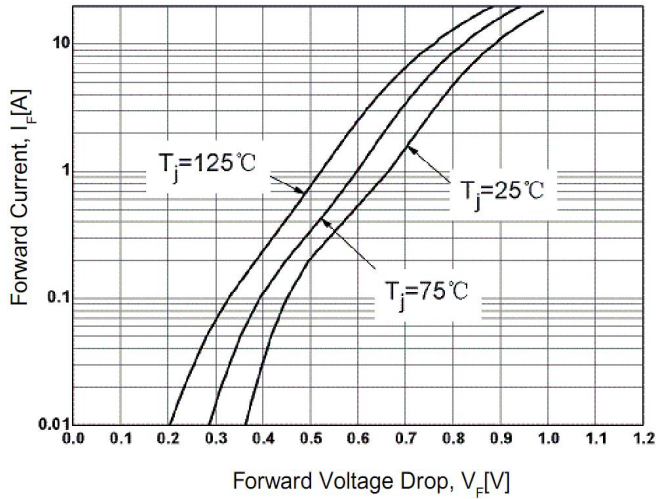


Figure 2. Reverse Leakage Current

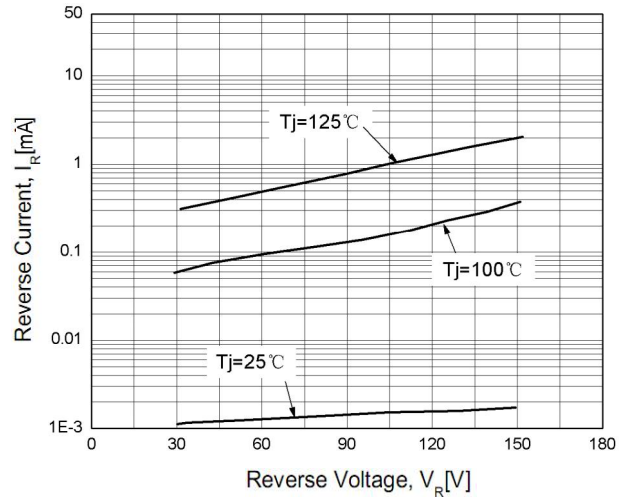


Figure 3. Junction Capacitance

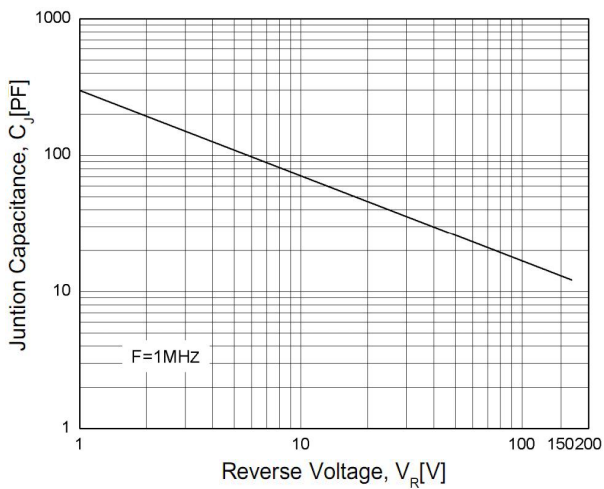
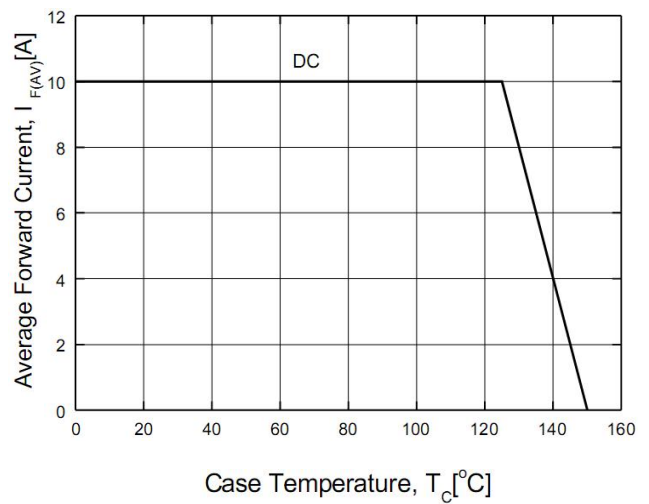


Figure 4. Power Derating



TO-220F Package Dimensions

UNIT: mm

| SYMBOL | min | nom | max | SYMBOL | min | nom | max |
|--------|-------|------|-------|--------|------|---------|------|
| A | 9.80 | | 10.60 | D | | 2.54 | |
| A1 | | 7.00 | | D1 | 1.15 | | 1.55 |
| A2 | 2.90 | | 3.40 | D2 | 0.60 | | 1.00 |
| A3 | 9.10 | | 9.90 | D3 | 0.20 | | 0.50 |
| B1 | 15.40 | | 16.40 | E | 2.24 | | 2.84 |
| B2 | 4.35 | | 4.95 | E1 | | 0.70 | |
| B3 | 6.00 | | 7.40 | E2 | | 1.0×45° | |
| C | 3.00 | | 3.70 | E3 | 0.35 | | 0.65 |
| C1 | 15.00 | | 17.00 | E4 | 2.30 | | 3.30 |
| C2 | 8.80 | | 10.80 | α (度) | | 30° | |

