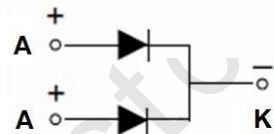
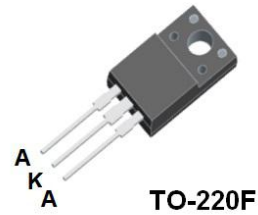


● **Features:**

- 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($T_c=25^{\circ}\text{C}$ 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, $T_c=120^{\circ}\text{C}$ | 10(Per Leg) 20(Per Device) | A |
| I_{FSM} | Peak Forward Surge Current, 8.3ms Half Sine wave | 150 | A |
| T_j | Operating Junction Temperature | 150 | $^{\circ}\text{C}$ |
| T_{stg} | Storage Temperature Range | -55 to +150 | $^{\circ}\text{C}$ |

Thermal Characteristics($T_c=25^{\circ}\text{C}$ unless otherwise noted)

| Symbol | Parameter | Max | Unit |
|-----------------|--|-----|-----------------------------|
| $R_{\theta JC}$ | Thermal Resistance, Junction to Case Per Leg | 3.5 | $^{\circ}\text{C}/\text{W}$ |

Electrical Characteristics($T_c=25^{\circ}\text{C}$ unless otherwise noted)

| Symbol | Parameter | Test Conditions | Min | Max | Unit |
|-----------|------------------------------------|--|-----|------------------------------|------|
| V_{RRM} | Maximum Repetitive Reverse Voltage | $I_R=100\mu\text{A}$ | 150 | | V |
| I_R | Reverse Current | $V_R=150\text{V}$ $T_c=25^{\circ}\text{C}$ $V_R=150\text{V}$ $T_c=125^{\circ}\text{C}$ | | 0.1 5 | mA |
| V_F | Forward Voltage | $I_F=10\text{A}$ $T_c=25^{\circ}\text{C}$ $I_F=10\text{A}$ $T_c=125^{\circ}\text{C}$ $I_F=20\text{A}$ $T_c=25^{\circ}\text{C}$ $I_F=20\text{A}$ $T_c=125^{\circ}\text{C}$ | | 0.97 0.87 1.07 0.97 | V |

Typical Performance Characteristics

Figure 1. Forward Current Characteristics

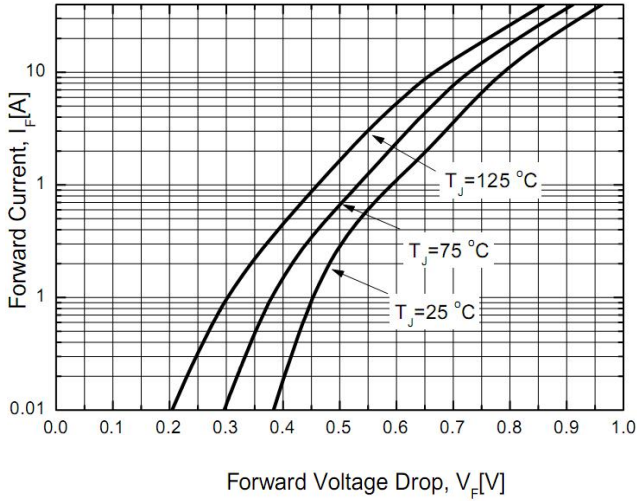


Figure 2. Reverse Leakage Current

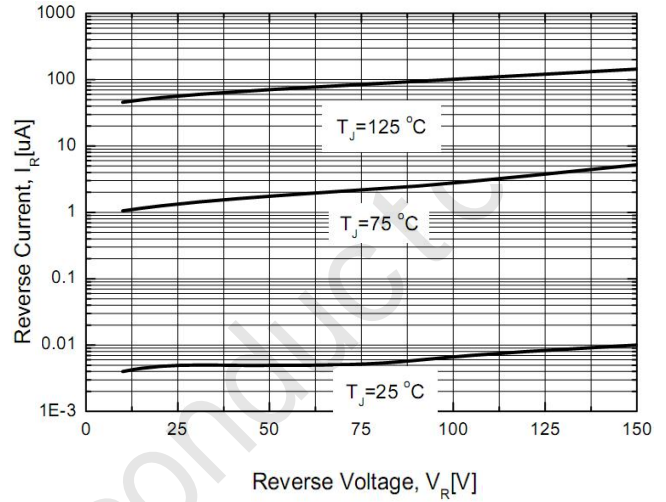


Figure 3. Junction Capacitance

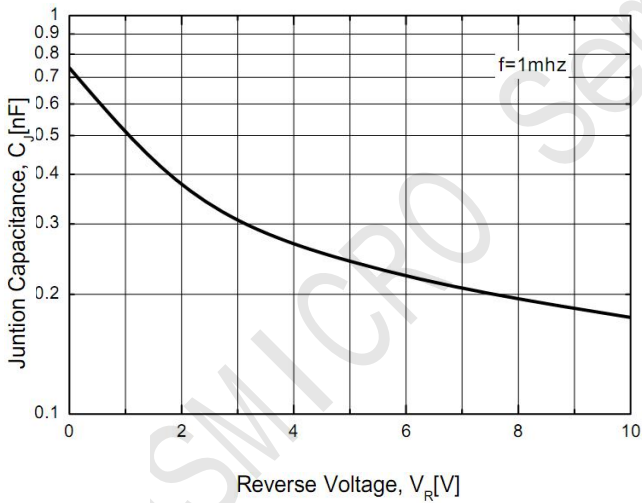
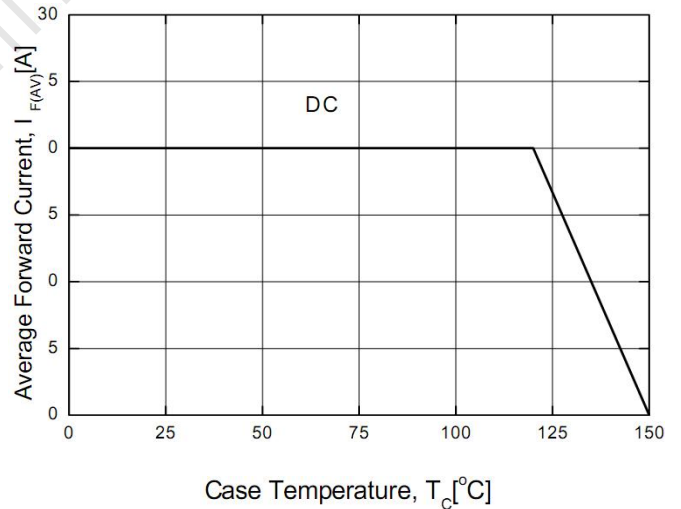
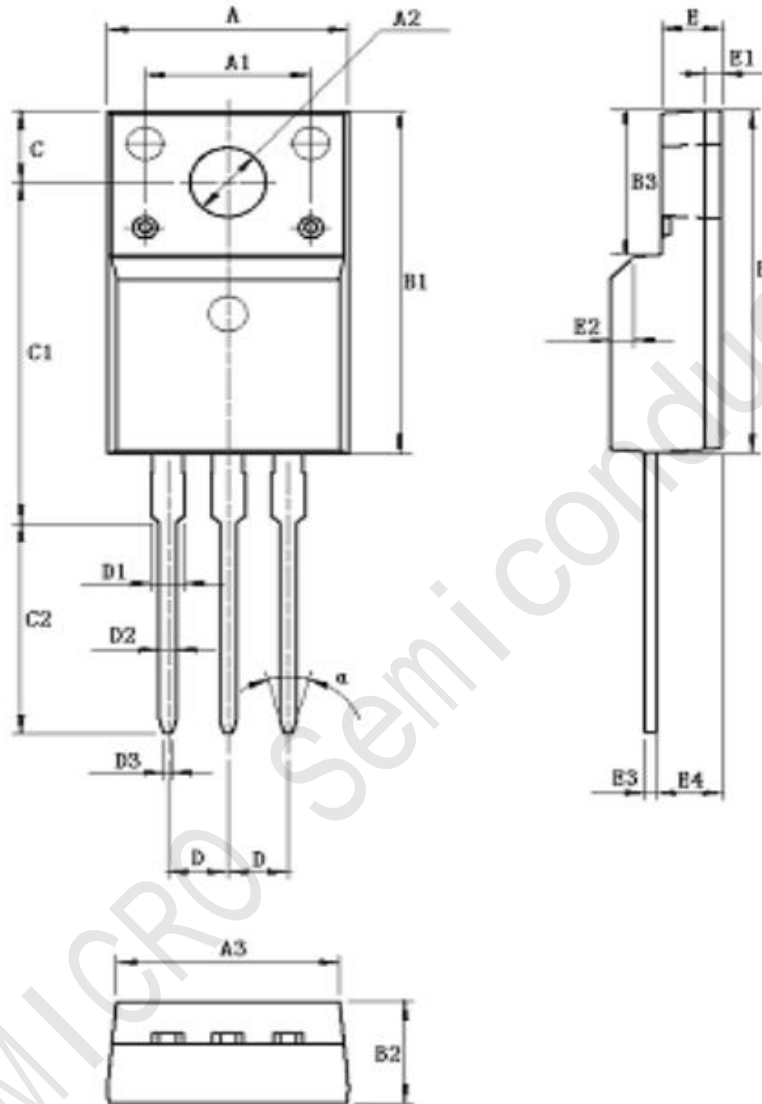


Figure 4. Power Derating



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° | |