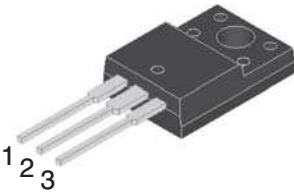
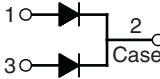


30.0 Amp. Schottky Barrier Rectifier

| | | | | | | | | | |
|--|--|-------------------------------|--------------------------|--|--|--|--|---|--|
| <p style="text-align: center; font-weight: bold; font-size: 1.2em;">ITO-220AB</p> <div style="text-align: center;">  </div> <div style="text-align: center; margin-top: 20px;">  <p>Common Cathode Suffix "C"</p> </div> | <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center; border-bottom: 1px solid black;">Voltage 45 to 150 V</td> <td style="text-align: center; border-bottom: 1px solid black;">Current 30.0 A</td> </tr> <tr> <td colspan="2" style="border-bottom: 1px solid black;"> FEATURES <ul style="list-style-type: none"> Ideal for automated placement Low power losses, high efficiency High surge current capability Guarding for overvoltage protection Low forward voltage drop Solder dip 260°C, 10s / 0.25" (6.35 mm) from case AEC-Q101 qualified Component in accordance to RoHS 2011/65/EU and WEEE 2002/96/EC Meets MSL level 1, per J-STD-020, LF maximum peak of 260° C </td> </tr> <tr> <td colspan="2" style="border-bottom: 1px solid black;"> MECHANICAL DATA <ul style="list-style-type: none"> Case: ITO-220AB. Epoxy meets UL 94V-0 flammability rating. Polarity: As marked on the body. Mounting Torque: 5 in-lbs maximum. Terminals: Matte tin plated leads, solderable per MIL-STD-750 Method 2026, J-STD-002 and JESD22-B102. Consumer grade, meets JESD 201 class 1A whisker test. </td> </tr> <tr> <td colspan="2"> TYPICAL APPLICATIONS Used in low voltage high frequency inverters, freewheeling, dc-to-dc converters, and polarity protection applications. </td> </tr> </table> | Voltage 45 to 150 V | Current 30.0 A | FEATURES <ul style="list-style-type: none"> Ideal for automated placement Low power losses, high efficiency High surge current capability Guarding for overvoltage protection Low forward voltage drop Solder dip 260°C, 10s / 0.25" (6.35 mm) from case AEC-Q101 qualified Component in accordance to RoHS 2011/65/EU and WEEE 2002/96/EC Meets MSL level 1, per J-STD-020, LF maximum peak of 260° C | | MECHANICAL DATA <ul style="list-style-type: none"> Case: ITO-220AB. Epoxy meets UL 94V-0 flammability rating. Polarity: As marked on the body. Mounting Torque: 5 in-lbs maximum. Terminals: Matte tin plated leads, solderable per MIL-STD-750 Method 2026, J-STD-002 and JESD22-B102. Consumer grade, meets JESD 201 class 1A whisker test. | | TYPICAL APPLICATIONS Used in low voltage high frequency inverters, freewheeling, dc-to-dc converters, and polarity protection applications. | |
| Voltage 45 to 150 V | Current 30.0 A | | | | | | | | |
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| TYPICAL APPLICATIONS Used in low voltage high frequency inverters, freewheeling, dc-to-dc converters, and polarity protection applications. | | | | | | | | | |



Maximum Ratings and Electrical Characteristics at 25°C

| Marking Code | | MBRF3045CT | MBRF3060CT | MBRF30100CT | MBRF30150CT |
|--------------|---|------------------|------------|-------------|-------------|
| Marking Code | | MBRF3045CT | MBRF3060CT | MBRF30100CT | MBRF30150CT |
| V_{RRM} | Peak recurrent reverse voltage (V) | 45 | 60 | 100 | 150 |
| V_{RMS} | Maximum RMS voltage (V) | 31 | 42 | 70 | 105 |
| V_{DC} | Maximum DC blocking voltage (V) | 45 | 60 | 100 | 150 |
| $I_{F(AV)}$ | Maximum average Forward current at $T_c = 130^\circ\text{C}$ (both diodes conducting) | 30 A | | | |
| I_{FSM} | 8.3 ms. peak forward surge current (Jedec Method) | 200 A | | | |
| I_{RRM} | Peak repetitive reverse surge current | 1.0 A | 0.5 A | | |
| T_j | Operating temperature range | - 55 to + 150 °C | | | |
| T_{stg} | Storage temperature range | - 55 to + 150 °C | | | |

Electrical Characteristics at $T_{amb} = 25^\circ\text{C}$

| | | | | | | |
|-------------|--|---------------------------|---------|---------|---------|--------|
| V_F | Max. forward voltage drop at $I_F = 15\text{ A}$ (Note 1) | $T_c = 25^\circ\text{C}$ | 0.70 V | 0.77 V | 0.84 V | 0.95 V |
| | | $T_c = 125^\circ\text{C}$ | 0.60 V | 0.65 V | 0.70 V | 0.80 V |
| | Max. forward voltage drop at $I_F = 30\text{ A}$ | $T_c = 25^\circ\text{C}$ | 0.82 V | -- | 0.94 V | 1.05 V |
| | | $T_c = 125^\circ\text{C}$ | 0.73 V | -- | 0.82 V | 0.92 V |
| I_R | Max. Instantaneous reverse current at $V_R = V_{RRMax}$ (Note 3) | $T_c = 25^\circ\text{C}$ | 0.20 mA | | | |
| | | $T_c = 125^\circ\text{C}$ | 20.0 mA | 15.0 mA | 10.0 mA | |
| R_{thj-C} | Typical Thermal Resistance (Note 2) | 4.0 °C/W | | | | |

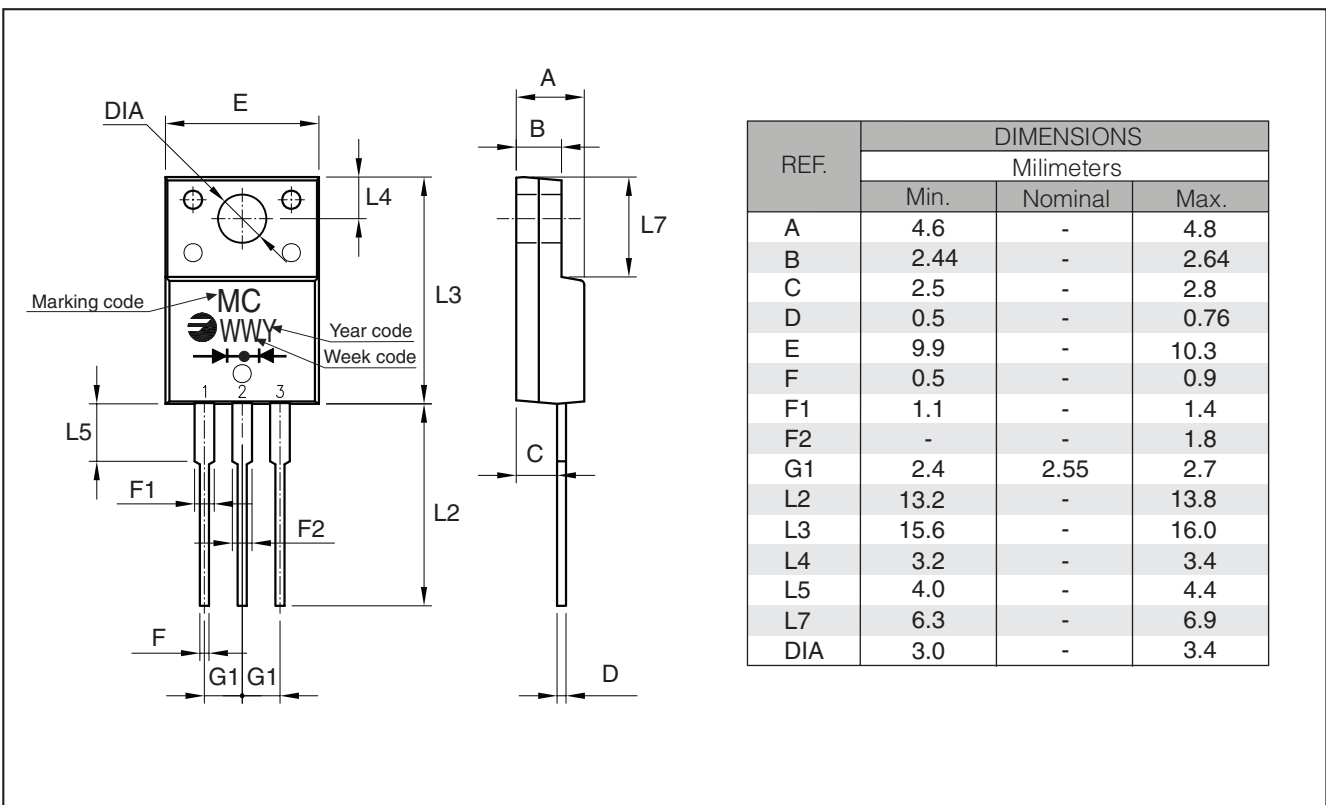
Notes: 1. Pulse Test: 300µ Pulse Width, 1% Duty Cycle
 2. Thermal Resistance from Junction to Case per diode
 3. Pulse test: Pulse width ≤ 40ms

30.0 Amp. Schottky Barrier Rectifier

Ordering information

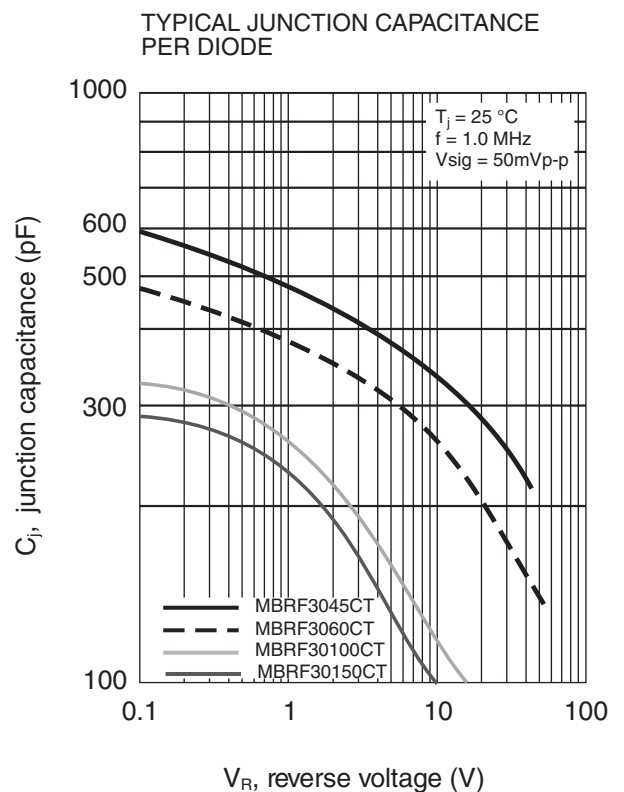
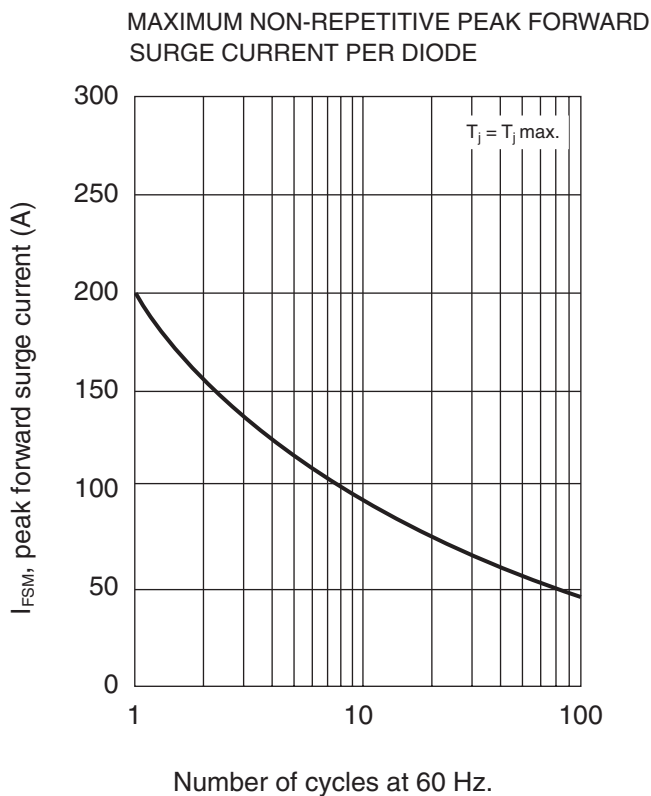
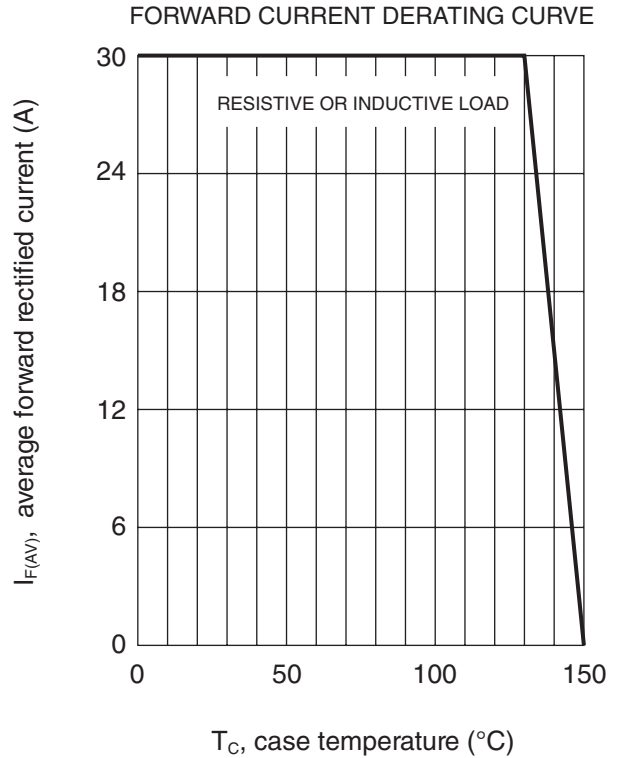
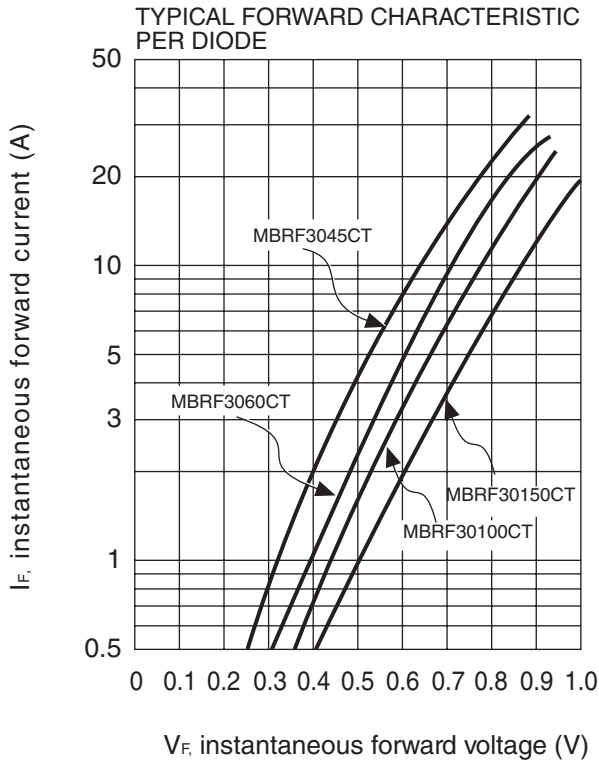
| PREFERRED P/N | PACKAGE CODE | DELIVERY MODE | BASE QUANTITY | UNIT WEIGHT (g) |
|-------------------|--------------|---------------|---------------|-----------------|
| MBRF3060CTC 00TUC | TU | TUBE | 2,000 | 2.02 |

Package Outline Dimensions: (mm) ITO-220AB



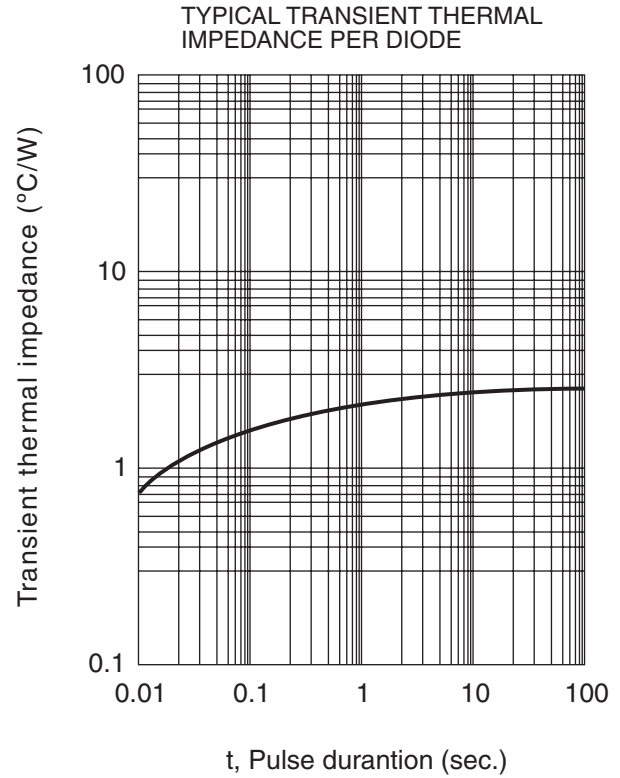
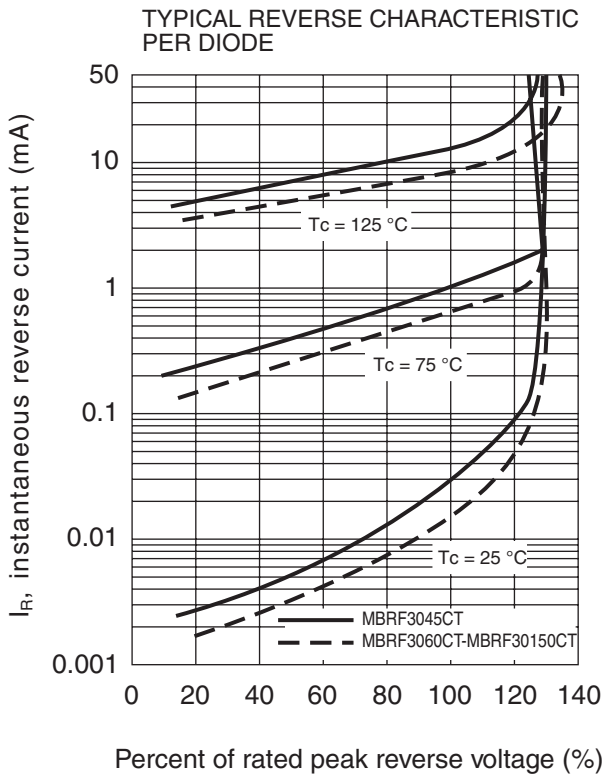
30.0 Amp. Schottky Barrier Rectifier

Ratings and Characteristics (Ta 25 °C unless otherwise noted)



30.0 Amp. Schottky Barrier Rectifier

Ratings and Characteristics (Ta 25 °C unless otherwise noted)



30.0 Amp. Schottky Barrier Rectifier

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