

### 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; 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;"><b>Voltage</b> 45 to 150 V</td> <td style="text-align: center; border-bottom: 1px solid black;"><b>Current</b> 30.0 A</td> </tr> <tr> <td colspan="2" style="border-bottom: 1px solid black;"> <b>FEATURES</b> <ul style="list-style-type: none"> <li>Ideal for automated placement</li> <li>Low power losses, high efficiency</li> <li>High surge current capability</li> <li>Guarding for overvoltage protection</li> <li>Low forward voltage drop</li> <li>Solder dip 260°C, 10s / 0.25" (6.35 mm) from case</li> <li>AEC-Q101 qualified</li> <li>Component in accordance to RoHS 2011/65/EU and WEEE 2002/96/EC</li> <li>Meets MSL level 1, per J-STD-020, LF maximum peak of 260° C</li> </ul> </td> </tr> <tr> <td colspan="2" style="border-bottom: 1px solid black;"> <b>MECHANICAL DATA</b> <ul style="list-style-type: none"> <li><b>Case:</b> ITO-220AB. Epoxy meets UL 94V-0 flammability rating.</li> <li><b>Polarity:</b> As marked on the body.</li> <li><b>Mounting Torque:</b> 5 in-lbs maximum.</li> <li><b>Terminals:</b> 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.</li> </ul> </td> </tr> <tr> <td colspan="2"> <b>TYPICAL APPLICATIONS</b>                      Used in low voltage high frequency inverters, freewheeling, dc-to-dc converters, and polarity protection applications.                 </td> </tr> </table>	<b>Voltage</b> 45 to 150 V	<b>Current</b> 30.0 A	<b>FEATURES</b> <ul style="list-style-type: none"> <li>Ideal for automated placement</li> <li>Low power losses, high efficiency</li> <li>High surge current capability</li> <li>Guarding for overvoltage protection</li> <li>Low forward voltage drop</li> <li>Solder dip 260°C, 10s / 0.25" (6.35 mm) from case</li> <li>AEC-Q101 qualified</li> <li>Component in accordance to RoHS 2011/65/EU and WEEE 2002/96/EC</li> <li>Meets MSL level 1, per J-STD-020, LF maximum peak of 260° C</li> </ul>		<b>MECHANICAL DATA</b> <ul style="list-style-type: none"> <li><b>Case:</b> ITO-220AB. Epoxy meets UL 94V-0 flammability rating.</li> <li><b>Polarity:</b> As marked on the body.</li> <li><b>Mounting Torque:</b> 5 in-lbs maximum.</li> <li><b>Terminals:</b> 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.</li> </ul>		<b>TYPICAL APPLICATIONS</b> Used in low voltage high frequency inverters, freewheeling, dc-to-dc converters, and polarity protection applications.	
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**RoHS**  
COMPLIANT

### 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				

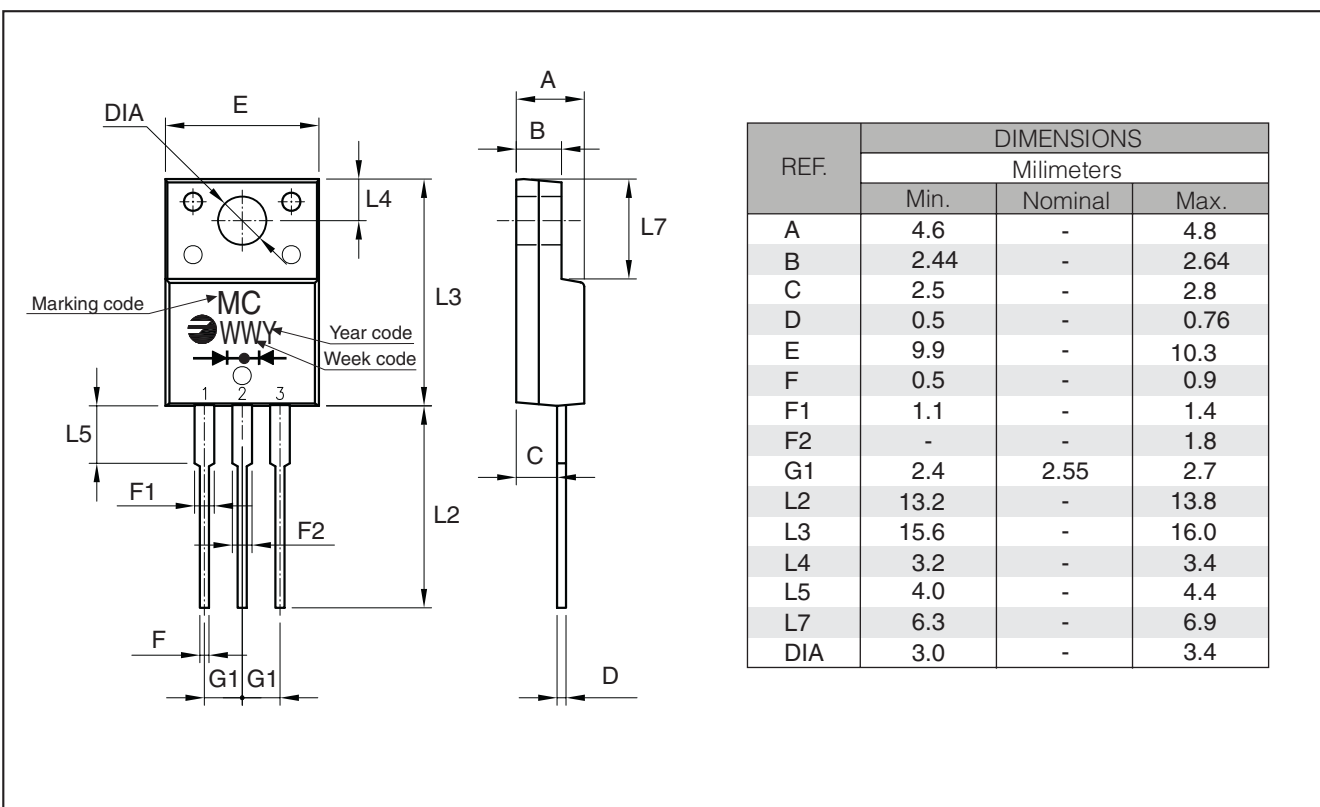
Notes: 1. Pulse Test: 300µ Pulse Width, 1% Duty Cycle  
 2. Thermal Resistance from Junction to Case per diode  
 3. Pulse test: Pulse width  $\leq 40\text{ms}$

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**Ordering information**

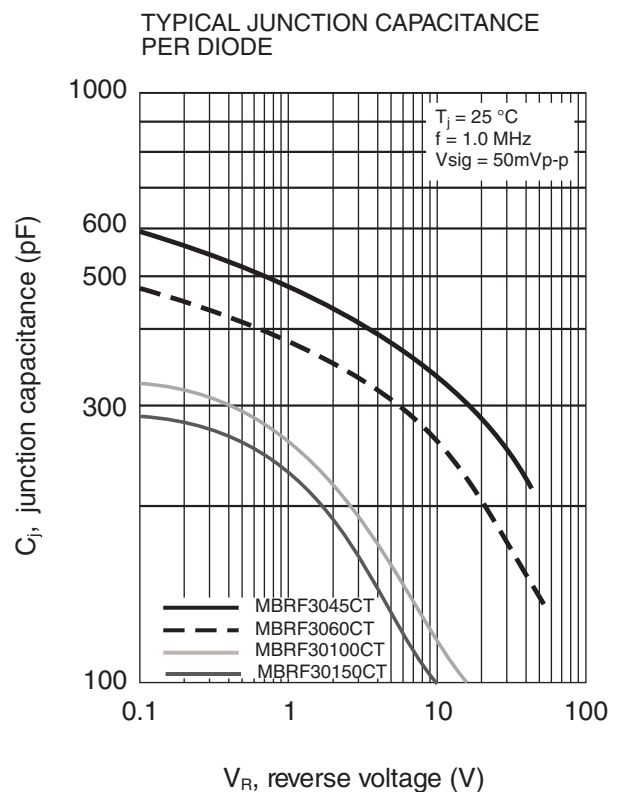
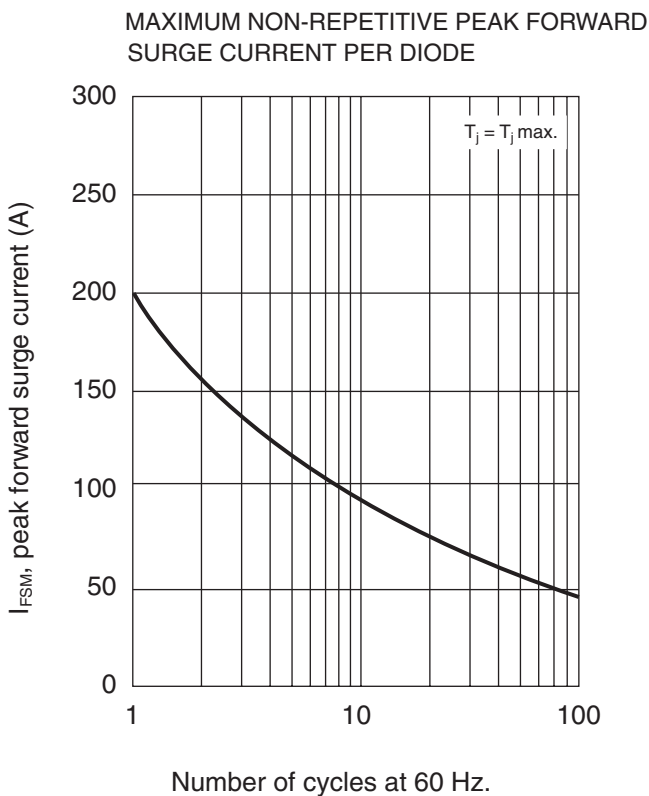
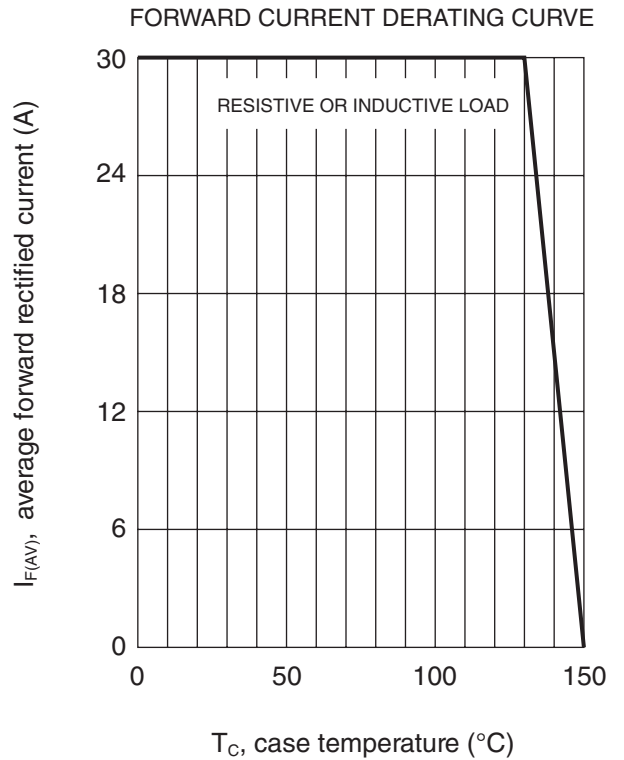
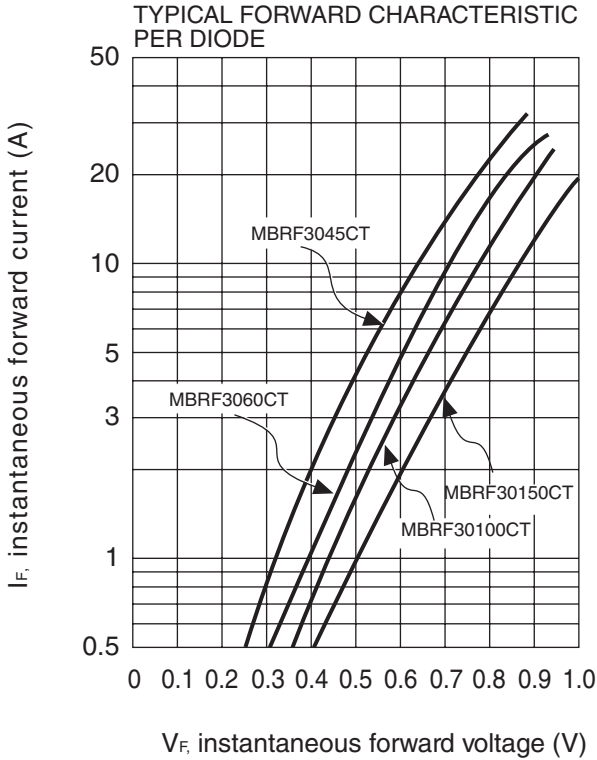
PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
MBRF3060CTC 00TUC	TU	TUBE	2,000	2.02

**Package Outline Dimensions: (mm) ITO-220AB**



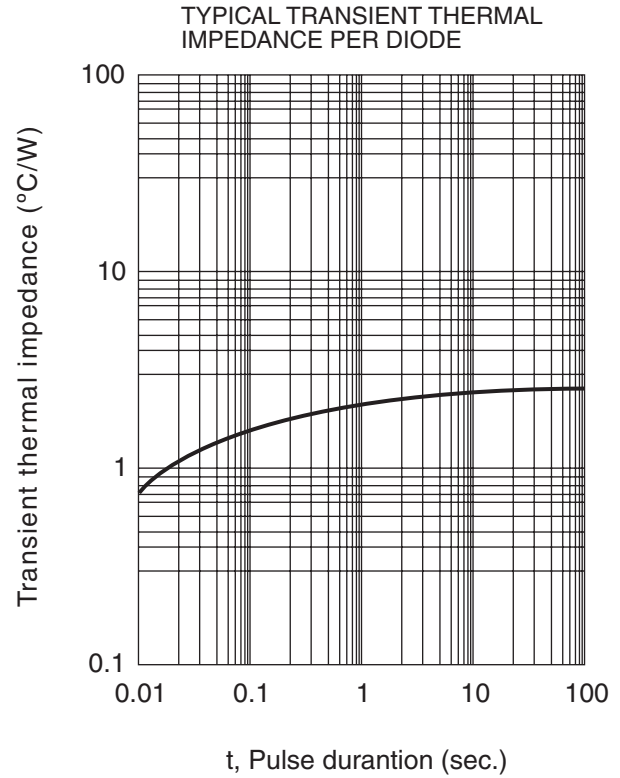
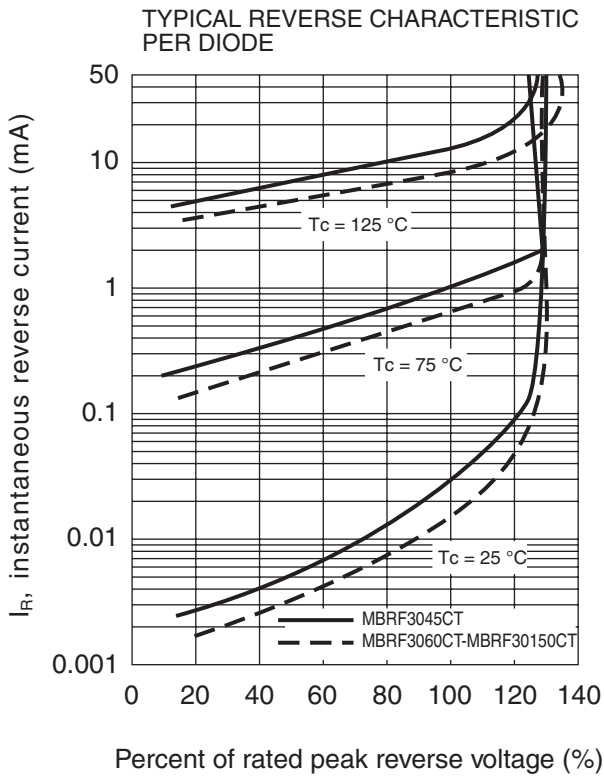
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Ratings and Characteristics (Ta 25 °C unless otherwise noted)



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