
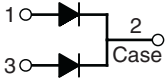


**20 Amp. Schottky Barrier Rectifier**

<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 200 V</td> <td style="text-align: center; border-bottom: 1px solid black;"><b>Current</b> 20 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 200 V	<b>Current</b> 20 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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**Maximun Ratings and Electrical Characteristics at 25°C**

Marking Code		MBRF2045CT	MBRF2060CT	MBRF20100CT	MBRF20150CT	MBRF20200CT
		MBRF2045CT	MBRF2060CT	MBRF20100CT	MBRF20150CT	MBRF20200CT
$V_{RRM}$	Peak recurrent reverse voltage (V)	45	60	100	150	200
$V_{RMS}$	Maximum RMS voltage (V)	31	42	70	105	140
$V_{DC}$	Maximum DC blocking voltage (V)	45	60	100	150	200
$I_F (AV)$	Maximum average Forward Rectified Current	20 A				
$I_{FSM}$	Peak Forward Surge Current 8.3 ms. Single Half Sine-wave Superimposed on Rated Load (Jedec Method)	150 A				
$C_j$	Typical Junction Capacitance at 1MHz and reverse voltage of 4V <sub>DC</sub>	400 pF	310 pF			
$T_j$	Operating temperature range	- 55 to + 150 °C				
$T_{stg}$	Storage temperature range	- 55 to + 150 °C				

**Electrical Characteristics at Tamb = 25 °C**

$V_F$	Max. forward voltage drop at $I_F = 10$ A (Note 1)	$T_c = 25$ °C	0.80 V	0.80 V	0.85 V	0.95 V
		$T_c = 125$ °C	0.57 V	0.70 V	0.75 V	0.85 V
	Max. forward voltage drop at $I_F = 20$ A	$T_c = 25$ °C	0.84 V	0.95 V	0.95 V	1.05 V
		$T_c = 125$ °C	0.72 V	0.85 V	0.85 V	0.95 V
$I_R$	Max. Instantaneous reverse current at $V_R = V_{RRMax}$ (Note 3)	$T_c = 25$ °C	0.10 mA			
		$T_c = 125$ °C	15 mA	10 mA	5 mA	2 mA
$R_{thj-C}$	Typical Thermal Resistance (Note 2)	3 °C/W		4 °C/W		

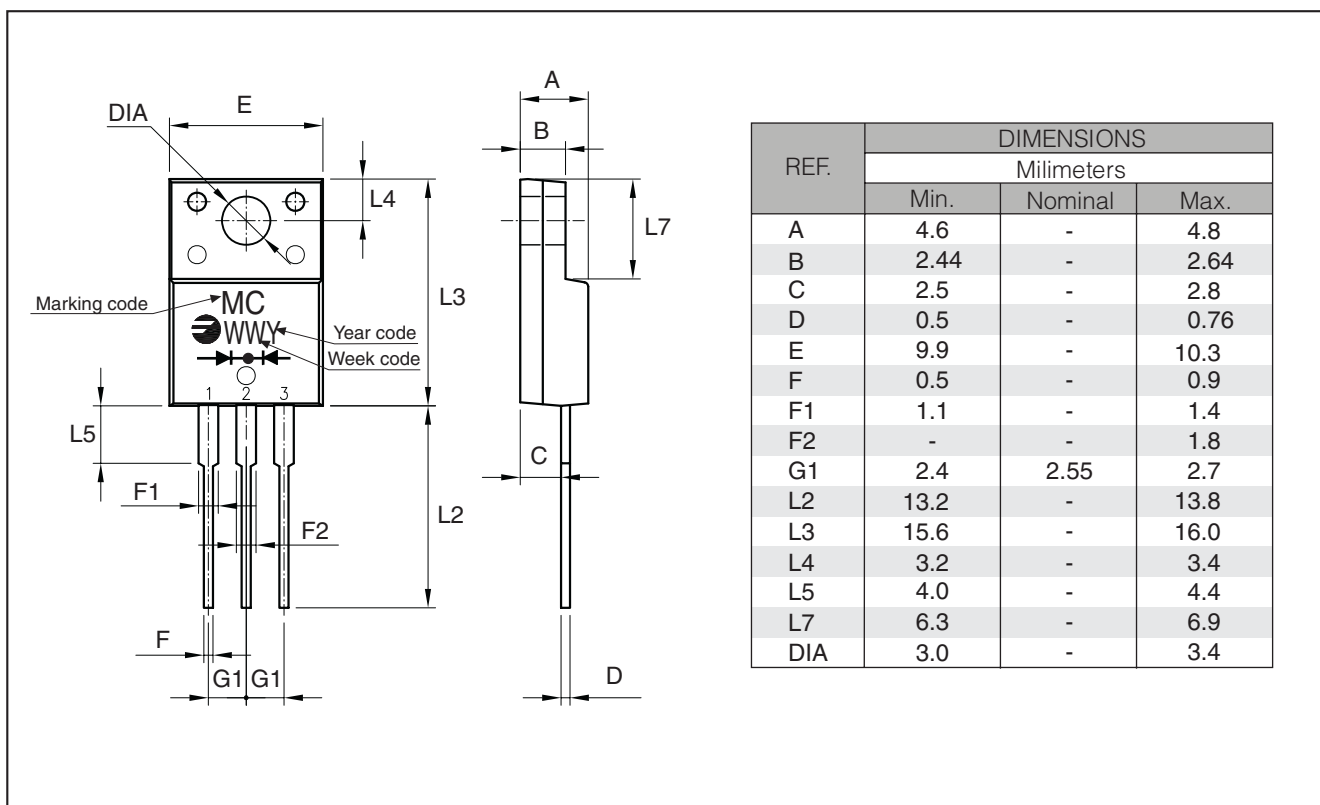
Notes: 1. Pulse Test: 300µ Pulse Width, 1% Duty Cycle  
 2. Thermal Resistance from Junction to Case per diode  
 3. Pulse test: Pulse width ≤ 40ms

## 20 Amp. Schottky Barrier Rectifier

### Ordering information

PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
MBRF2060CTC 00TUC	TU	TUBE	1,000	2.02

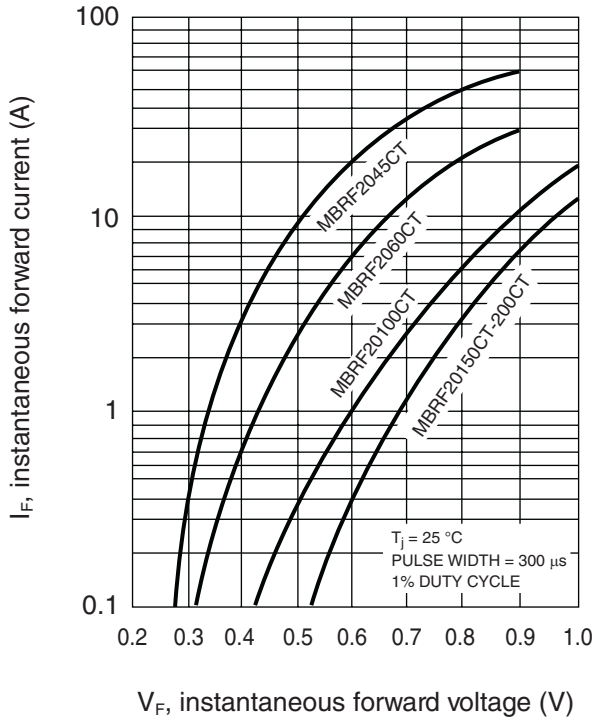
### Package Outline Dimensions: (mm) ITO-220AB



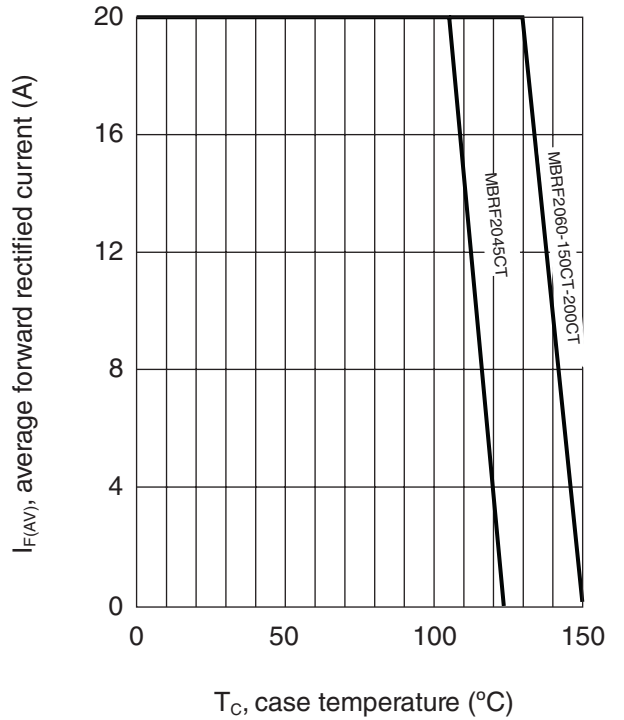
20 Amp. Schottky Barrier Rectifier

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

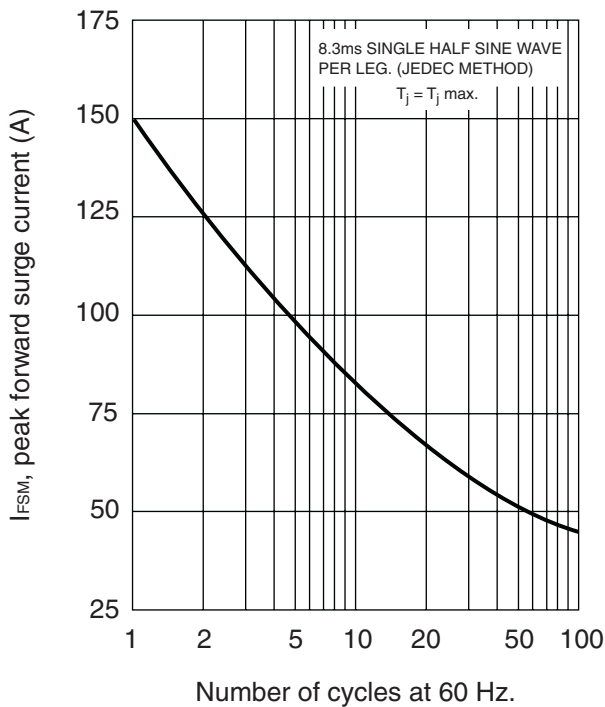
TYPICAL FORWARD CHARACTERISTIC PER LEG



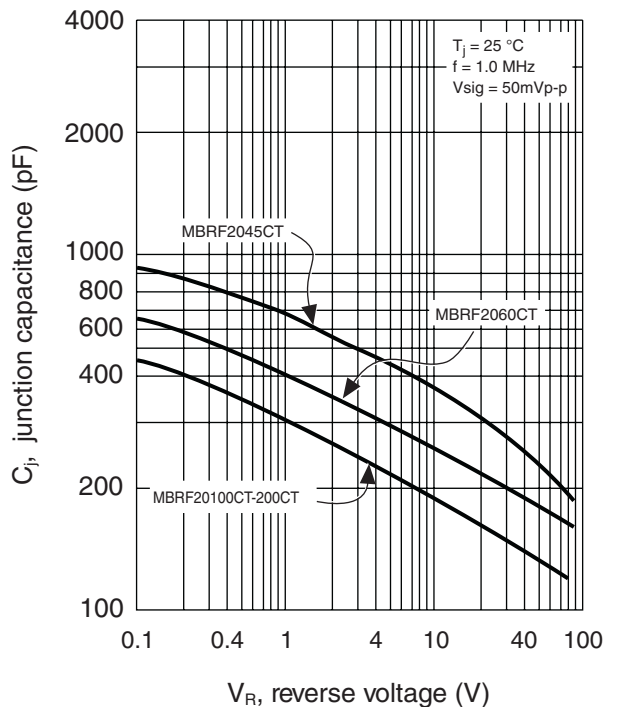
FORWARD CURRENT DERATING CURVE



MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG



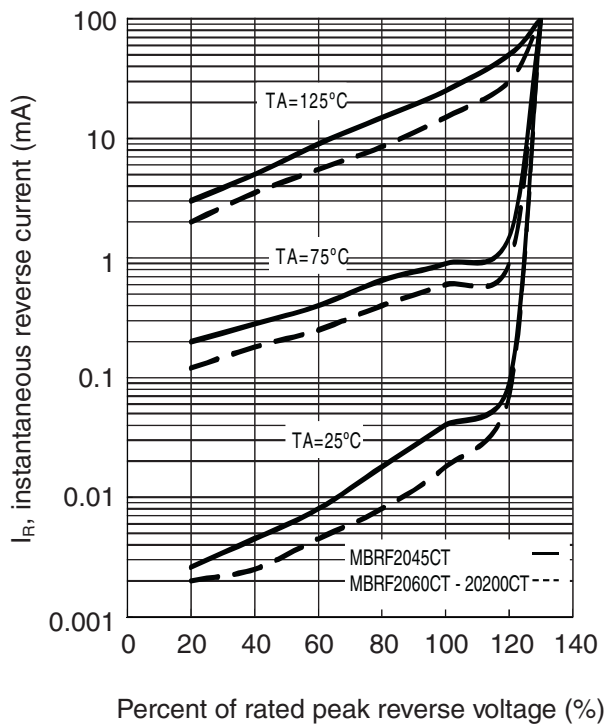
TYPICAL JUNCTION CAPACITANCE PER LEG



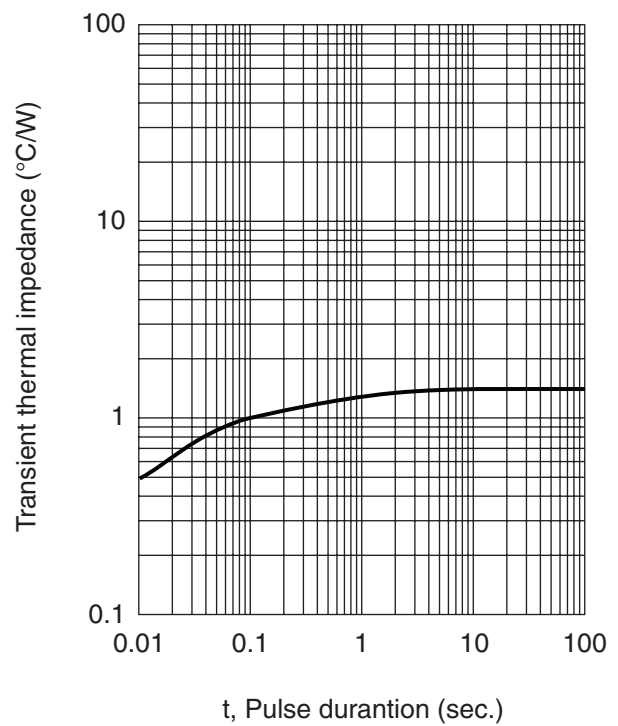
**20 Amp. Schottky Barrier Rectifier**

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

TYPICAL REVERSE CHARACTERISTIC PER LEG



TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG



**20 Amp. Schottky Barrier Rectifier**

**Revision History**

Date	Revision	Description of Changes
14-Apr-2007	0	Original Data Sheet
04-Jun-2013	1	200V included
21-Jun-2013	2	Change values of: $T_j / T_{stg} / R_{th(j-c)} /$ Base Quantity

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