

**20.0 Amp. Schottky Barrier Rectifier**

<p><b>TO-220AB</b></p> <p>Common Cathode Suffix "C"</p>	<p><b>Voltage</b> 100 V</p>	<p><b>Current</b> 20.0 A</p>
	<p><b>FEATURES</b></p> <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>• Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC</li> <li>• Meets MSL level 1, per J-STD-020, LF maximum peak of 260° C</li> </ul>	
<p><b>MECHANICAL DATA</b></p> <ul style="list-style-type: none"> <li>• <b>Case:</b> TO-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>		
<p><b>TYPICAL APPLICATIONS</b></p> <p>Used in low voltage high frequency inverters, freewheeling, dc-to-dc converters, and polarity protection applications.</p>		

**Maximum Ratings and Electrical Characteristics at 25°C**

Marking Code		MBR20100CTV
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$V_{RRM}$	Peak recurrent reverse voltage (V)	100
$V_{RMS}$	Maximum RMS voltage (V)	70
$V_{DC}$	Maximum DC blocking voltage (V)	100
$I_F (AV)$	Maximum average Forward current at $T_c = 135^\circ C$ (both diodes conducting)	20 A
$I_{FSM}$	8.3 ms. peak forward surge current (Jedec Method)	150 A
$I_{RRM}$	Peak repetitive reverse surge current	0.5 A
$T_j$	Operating temperature range	- 65 to + 150 °C
$T_{stg}$	Storage temperature range	- 65 to + 175 °C

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

$V_F$	Max. forward voltage drop at $I_F = 10\text{ A}$ (Note 1)	$T_c = 25^\circ C$	0.80 V
		$T_c = 125^\circ C$	0.65 V
	Max. forward voltage drop at $I_F = 20\text{ A}$	$T_c = 25^\circ C$	0.90 V
		$T_c = 125^\circ C$	0.80 V
$I_R$	Max. Instantaneous reverse current at $V_R = V_{RRMax}$ (Note 3)	$T_c = 25^\circ C$	0.10 mA
		$T_c = 125^\circ C$	5.0 mA
$R_{thj-C}$	Typical Thermal Resistance (Note 2)		2.0 °C/W

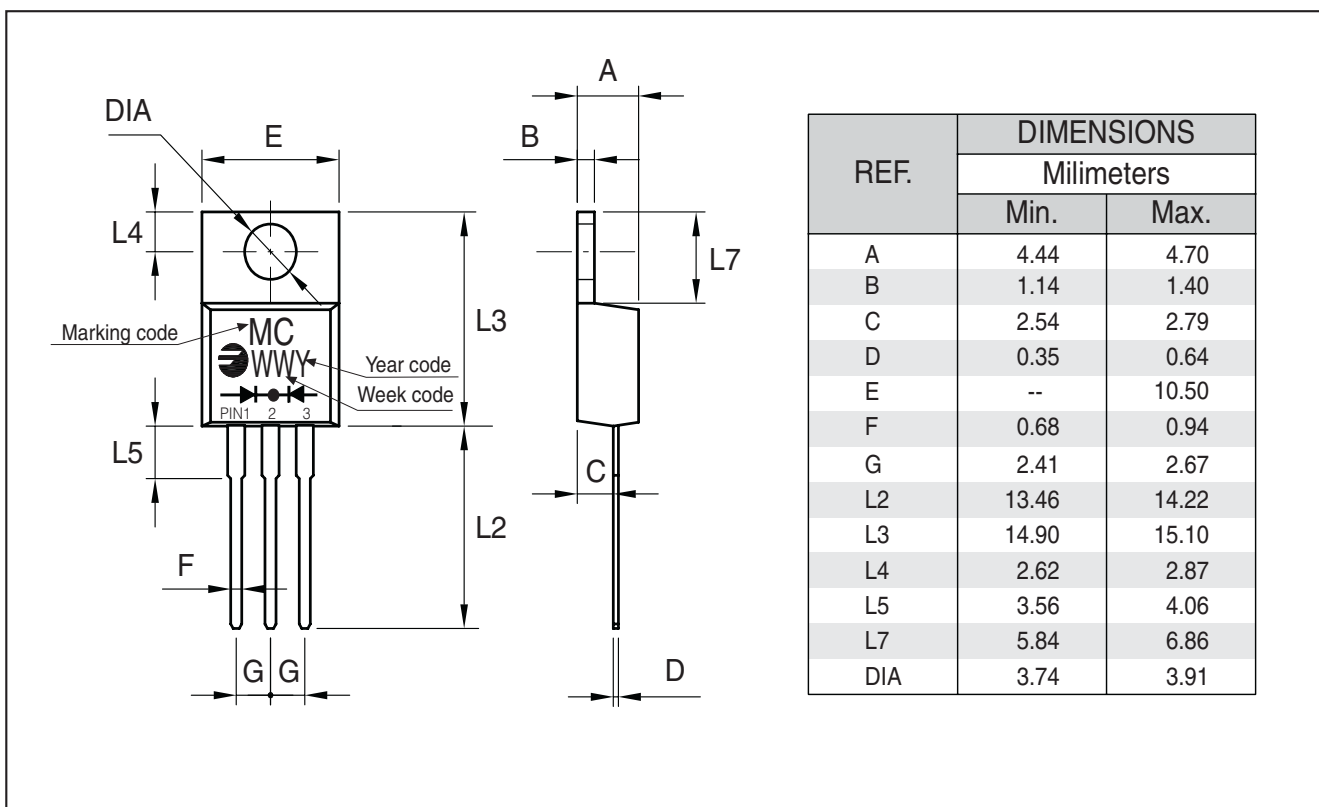
Notes: 1. Pulse Test: 300µ Pulse Width, 1% Duty Cycle  
 2. Thermal Resistance from Junction to Case per diode  
 3. Pulse test: Pulse width  $\leq 40\text{ms}$

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**Ordering information**

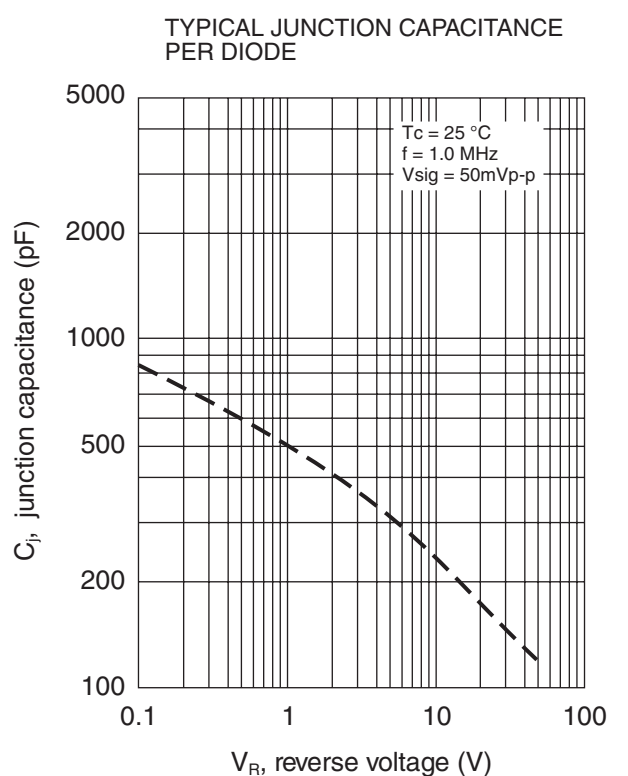
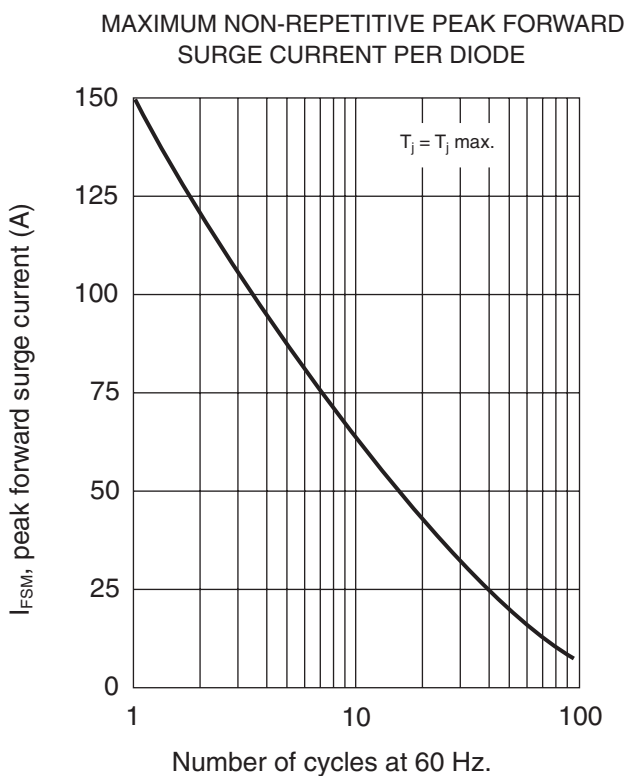
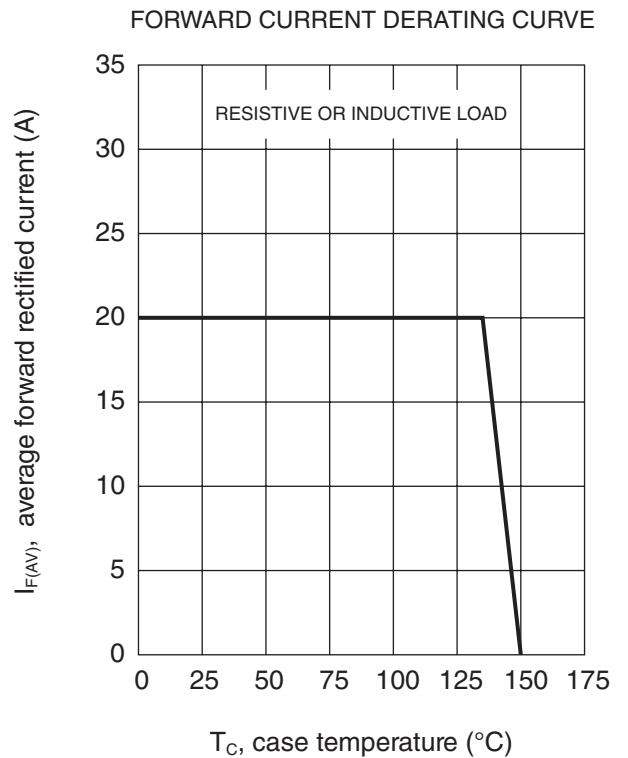
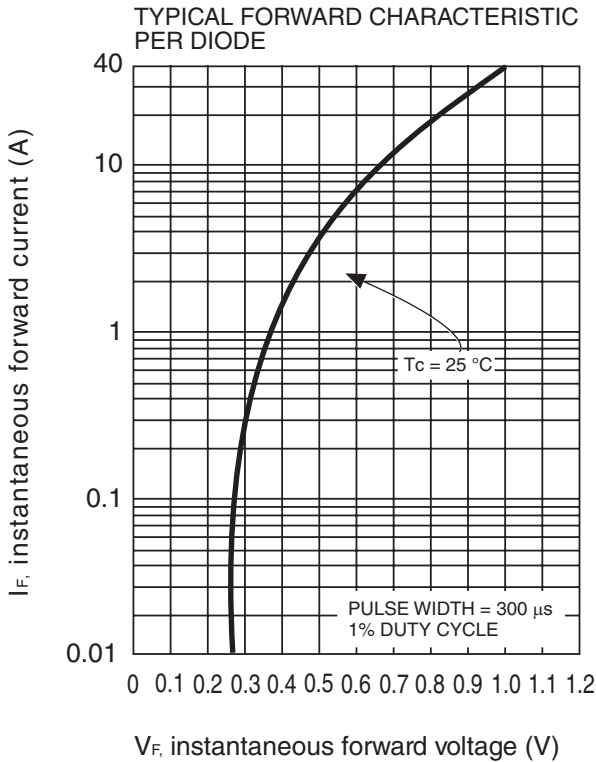
PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
MBR20100CTVC 00TUC	TU	TUBE	2,000	1.90

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



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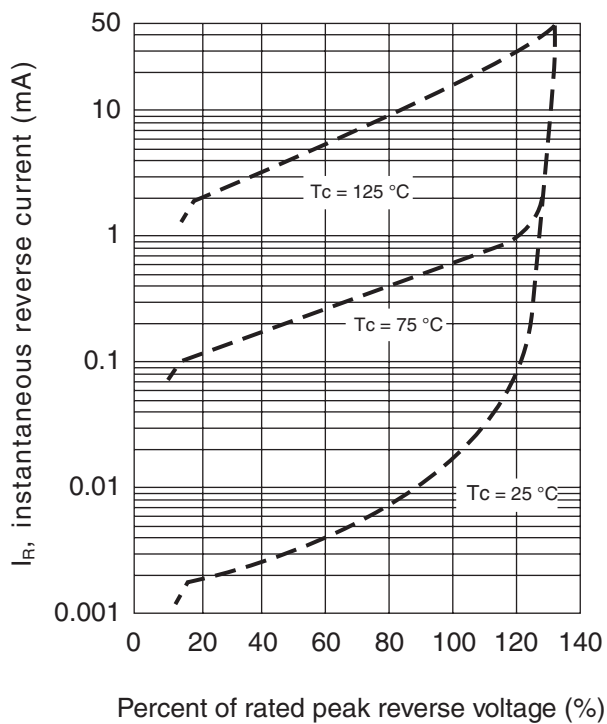
**Ratings and Characteristics (Ta 25 °C unless otherwise noted)**



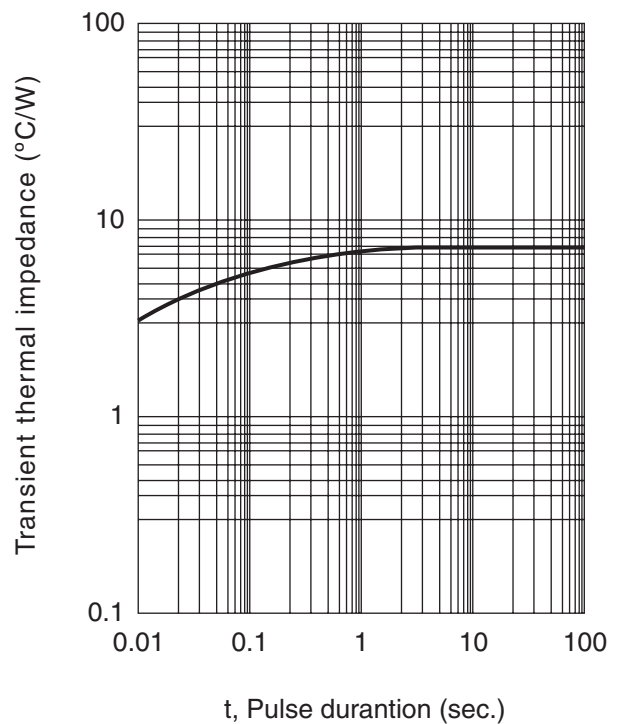
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**Ratings and Characteristics (Ta 25 °C unless otherwise noted)**

TYPICAL REVERSE CHARACTERISTIC PER DIODE



TYPICAL TRANSIENT THERMAL IMPEDANCE PER DIODE



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