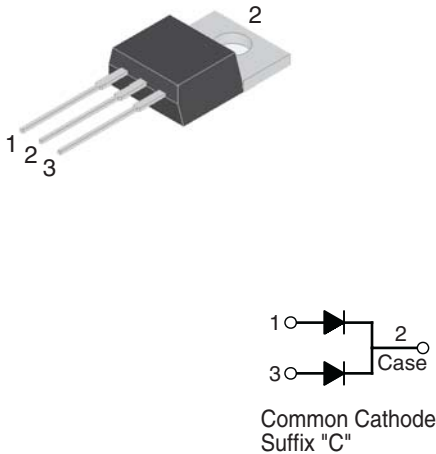



20.0 Amp. Schottky Barrier Rectifier

<p>TO-220AB</p>  <p>Common Cathode Suffix "C"</p>	<p>Voltage 45 to 200 V</p>	<p>Current 20.0 A</p>	
	<p>FEATURES</p> <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 • 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 		 <p>RoHS COMPLIANT</p>
	<p>MECHANICAL DATA</p> <ul style="list-style-type: none"> • Case: TO-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. 		
	<p>TYPICAL APPLICATIONS</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

		MBR2045CT	MBR2060CT	MBR20100CT	MBR20200CT
Marking Code		MBR2045CT	MBR2060CT	MBR20100CT	MBR20200CT
V_{RRM}	Peak recurrent reverse voltage (V)	45	60	100	200
V_{RMS}	Maximum RMS voltage (V)	31	42	70	140
V_{DC}	Maximum DC blocking voltage (V)	45	60	100	200
$I_{F(AV)}$	Maximum average Forward current at $T_c = 135^\circ\text{C}$ (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	1.0 A			
T_j	Operating temperature range	- 55 to + 150 °C			
T_{stg}	Storage temperature range	- 55 to + 150 °C			

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

		MBR2045CT	MBR2060CT	MBR20100CT	MBR20200CT
V_F	Max. forward voltage drop at $I_F = 10\text{ A}$ (Note 1)	0.56 V	0.80 V	0.85 V	0.99 V
		--	--	0.75 V	--
	Max. forward voltage drop at $I_F = 20\text{ A}$	--	--	0.95 V	--
		--	--	0.85 V	--
I_R	Max. Instantaneous reverse current at $V_R = V_{RRMax}$ (Note 3)	0.20 mA		0.10 mA	0.20 mA
		--	--	5.0 mA	--
R_{thj-C}	Typical Thermal Resistance (Note 2)	2.0 °C/W			

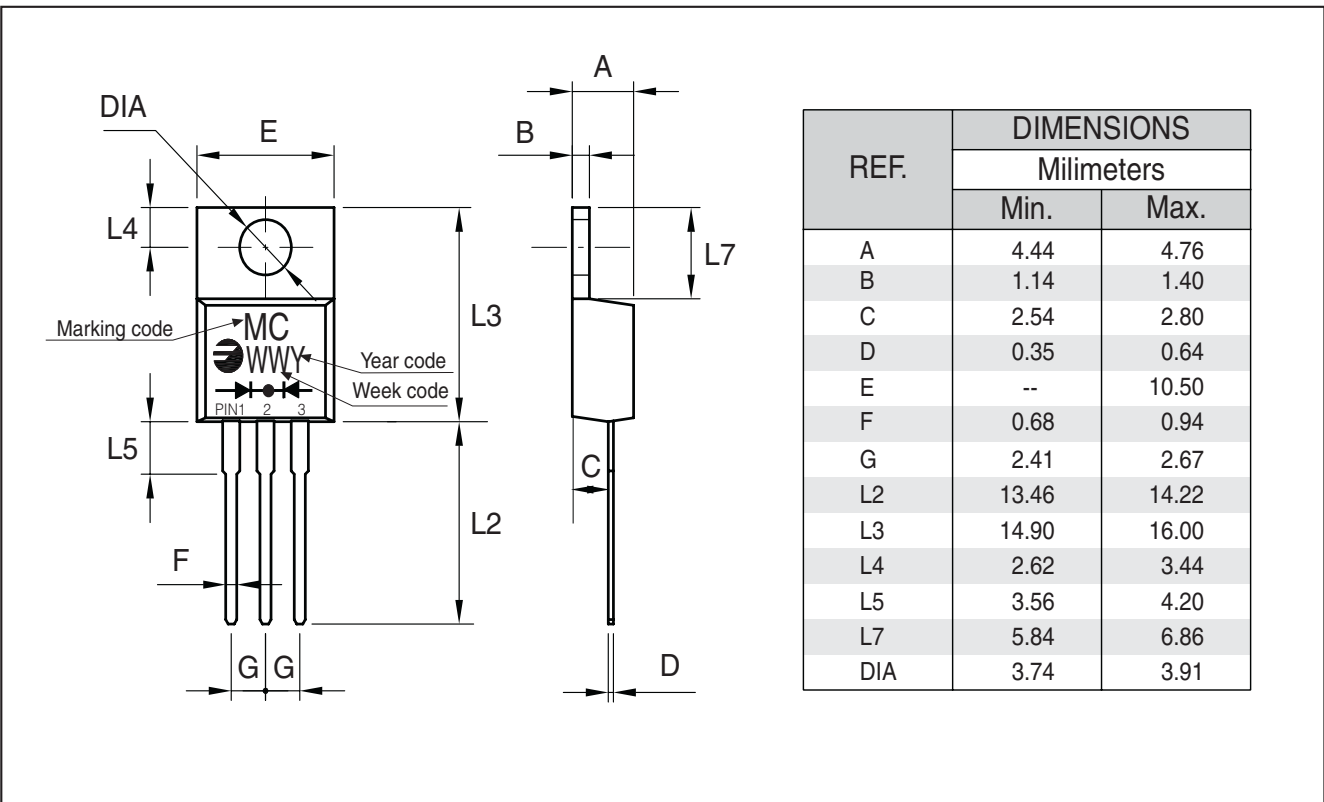
Notes: 1. Pulse Test: 300µ Pulse Width, 1% Duty Cycle
 2. Thermal Resistance from Junction to Case per diode
 3. Pulse test: Pulse width ≤ 40ms

20.0 Amp. Schottky Barrier Rectifier

Ordering information

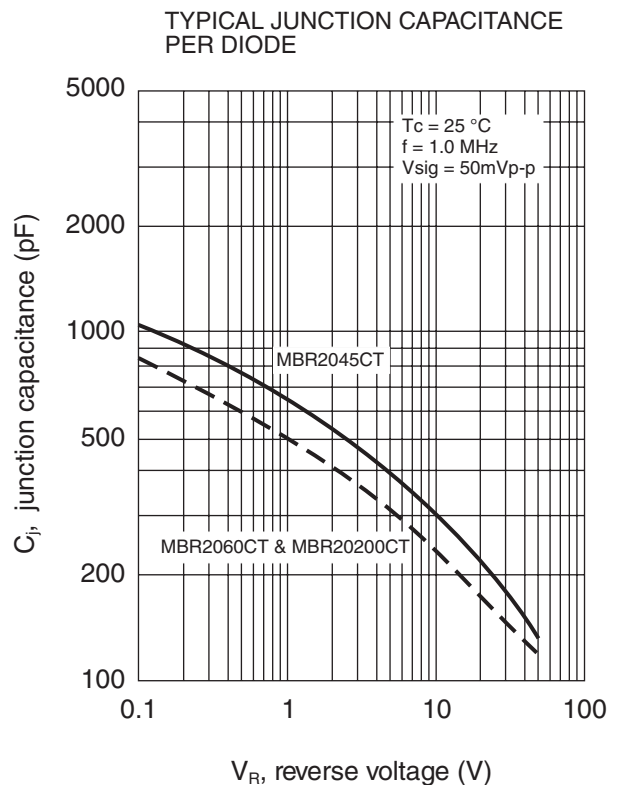
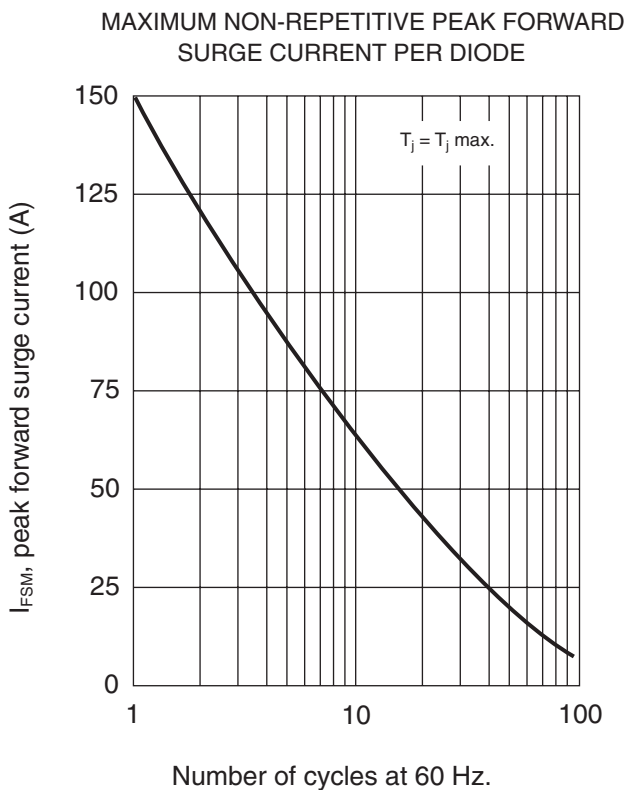
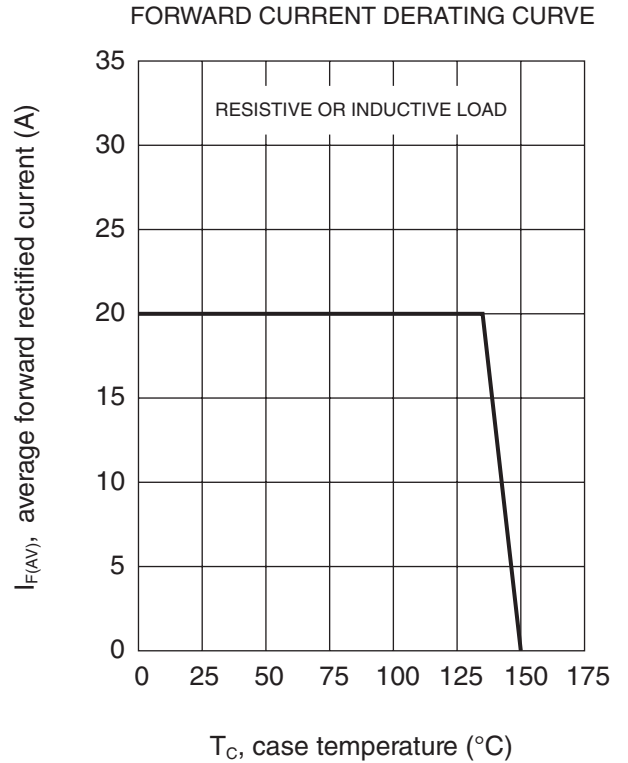
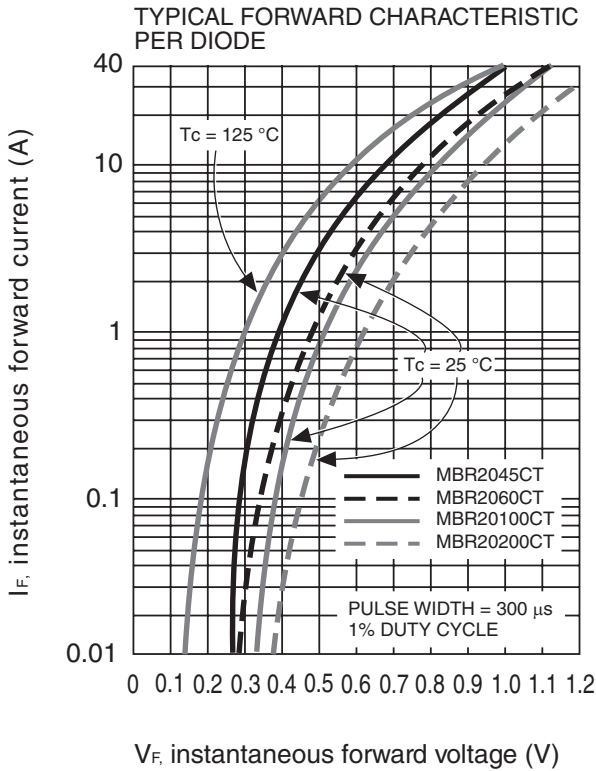
PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
MBR2060CTC 00TUC	TU	TUBE	1,000	0.95

Package Outline Dimensions: (mm) TO-220AB



20.0 Amp. Schottky Barrier Rectifier

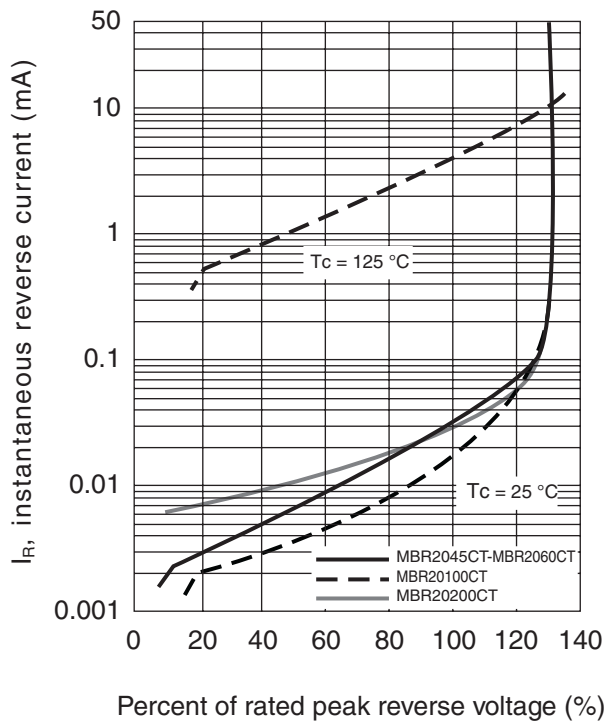
Ratings and Characteristics (Ta 25 °C unless otherwise noted)



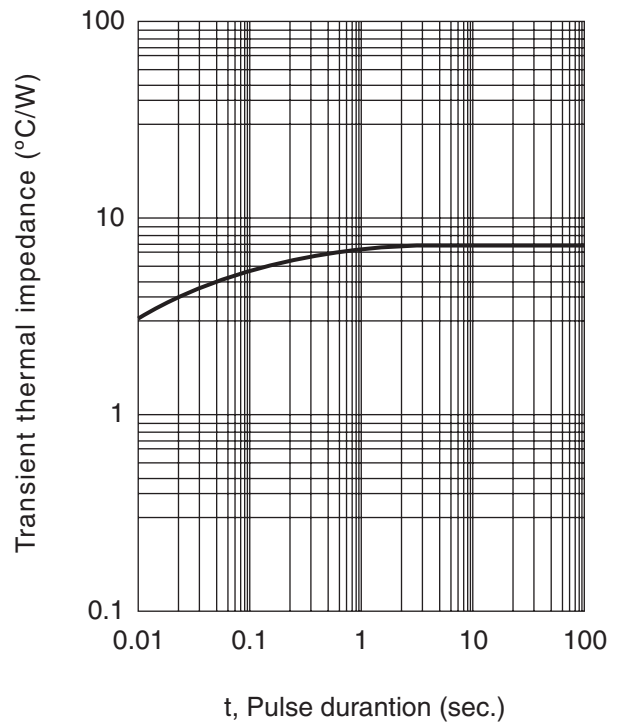
20.0 Amp. Schottky Barrier Rectifier

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

TYPICAL REVERSE CHARACTERISTIC PER DIODE



TYPICAL TRANSIENT THERMAL IMPEDANCE PER DIODE



20.0 Amp. Schottky Barrier Rectifier

Revision History

Date	Revision	Description of Changes
15-Feb-2012	0	Original Data Sheet
15-Jan-2016	1	Modify IR at 25°C, Base Quantity, I _{rrm} , R _{thjc} and T _{sg}
01-Mar-2016	2	Modify IR at 25°C, update VF and IR at 125°C for MBR20100CT

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