



MBR20150C

DIODE

SCHOTTKY BARRIER RECTIFIER

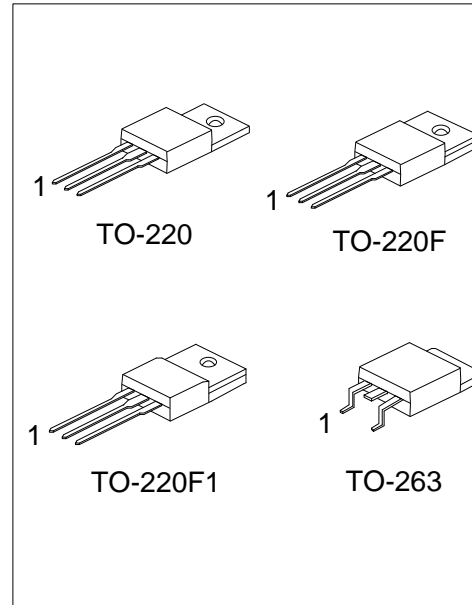
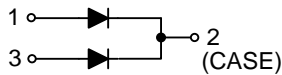
DESCRIPTION

The UTC **MBR20150C** is a Schottky Barrier Rectifier with high junction temperature capacity.

FEATURES

- * Good trade off between leakage current and forward voltage drop
- * High junction temperature capability
- * Low leakage current

SYMBOL



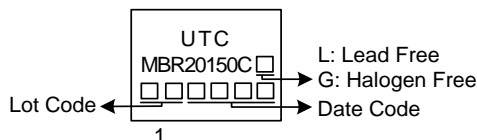
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MBR20150CL-TA3-T	MBR20150CG-TA3-T	TO-220	A	K	A	Tube
MBR20150CL-TF3-T	MBR20150CG-TF3-T	TO-220F	A	K	A	Tube
MBR20150CL-TF1-T	MBR20150CG-TF1-T	TO-220F1	A	K	A	Tube
MBR20150CL-TQ2-T	MBR20150CG-TQ2-T	TO-263	A	K	A	Tube
MBR20150CL-TQ2-R	MBR20150CG-TQ2-R	TO-263	A	K	A	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

<p>MBR20150CG-TA3-T</p> <p>(1) Packing Type (2) Package Type (3) Green Package</p>	<p>(1) T: Tube, R: Tape Reel (2) TA3: TO-220, TF3: TO-220F, TF1: TO-220F1 TQ2: TO-263 (3) G: Halogen Free and Lead Free, L: Lead Free</p>
--	---

MARKING



■ **ABSOLUTE MAXIMUM RATING** ($T_A=25^{\circ}\text{C}$, unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNIT
Recurrent Peak Reverse Voltage		V_{RRM}	150	V
RMS Voltage		$V_{R(RMS)}$	105	V
DC Blocking Voltage		V_R	150	V
Average Forward Rectified Output Current	Per Leg	I_o	10	A
	Total		20	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half-Sine-Wave		I_{FSM}	150	A
Junction Capacitance (Note 4)		C_J	320	pF
Junction Temperature		T_J	-55 ~ +175	$^{\circ}\text{C}$
Storage Temperature		T_{STG}	-55 ~ +175	$^{\circ}\text{C}$

■ **THERMAL CHARACTERISTICS**

PARAMETER		SYMBOL	RATINGS	UNIT
Junction to Ambient		θ_{JA}	60	$^{\circ}\text{C/W}$
Junction to Case	TO-220/TO-263	θ_{JC}	2	$^{\circ}\text{C/W}$
	TO-220F/TO-220F1		4	$^{\circ}\text{C/W}$

■ **ELECTRICAL CHARACTERISTICS**

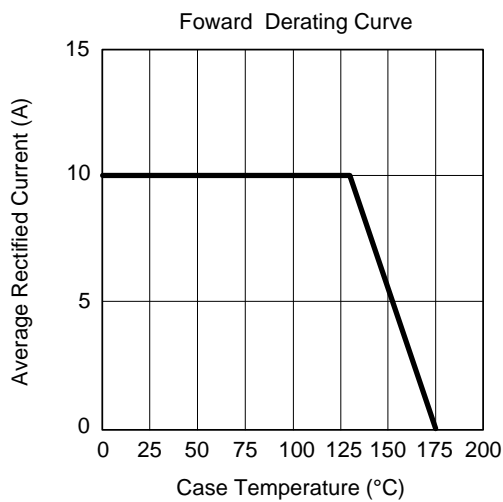
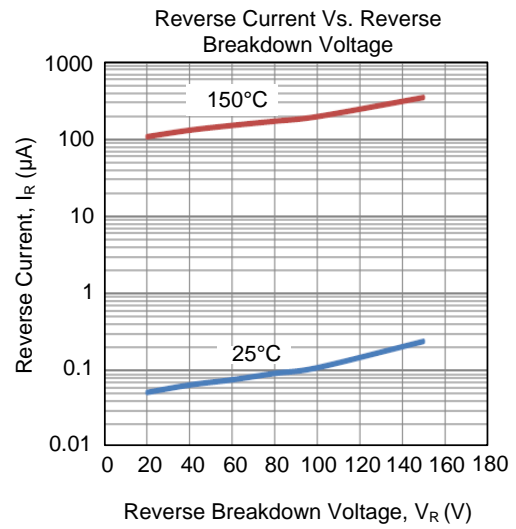
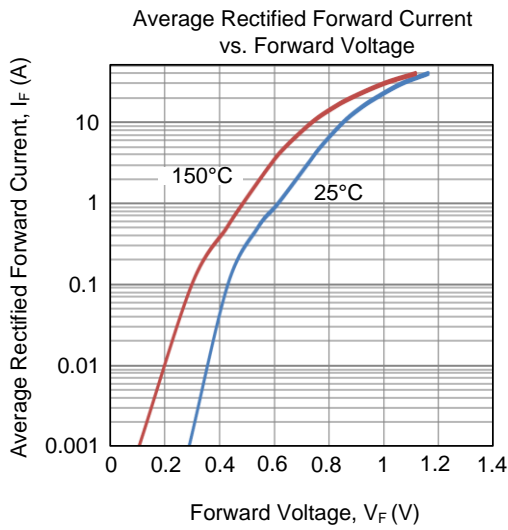
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Instantaneous Forward Voltage Drop (Note 3)	V_F	$I_F=10\text{A}, T_C=25^{\circ}\text{C}$			0.92	V
		$I_F=10\text{A}, T_C=125^{\circ}\text{C}$			0.8	V
		$I_F=20\text{A}, T_C=25^{\circ}\text{C}$			1.05	V
		$I_F=20\text{A}, T_C=125^{\circ}\text{C}$			1	V
Instantaneous Reverse Current (Note 3)	I_R	Rated DC Voltage, $T_C=25^{\circ}\text{C}$			0.20	mA
		Rated DC Voltage, $T_C=125^{\circ}\text{C}$			5	

Notes: 1. Absolute maximum ratings are those values beyond which the device could be permanently damaged.

Absolute maximum ratings are stress ratings only and functional device operation is not implied.

2. 2.0 μs Pulse Width, $f = 1.0\text{KHz}$.
3. Pulse Test: Pulse Width=300 μs , Duty Cycles $\leq 2.0\%$.
4. Applied $V_R = 4.0\text{V}$ and $f = 1.0\text{MHz}$.

■ TYPICAL CHARACTERISTICS



UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. UTC reserves the right to make changes to information published in this document, including without limitation specifications and product descriptions, at any time and without notice. This document supersedes and replaces all information supplied prior to the publication hereof.