



## MBR20150C

DIODE

### SCHOTTKY BARRIER RECTIFIER

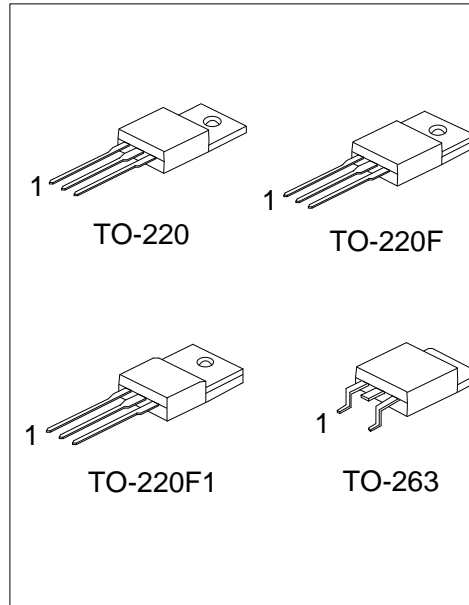
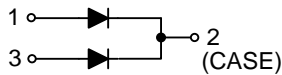
#### DESCRIPTION

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



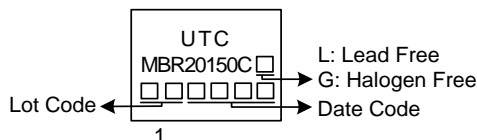
#### ORDERING INFORMATION

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>
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#### MARKING



## ■ ABSOLUTE MAXIMUM RATING (T<sub>A</sub>=25°C, unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNIT
Recurrent Peak Reverse Voltage		V <sub>RRM</sub>	150	V
RMS Voltage		V <sub>R(RMS)</sub>	105	V
DC Blocking Voltage		V <sub>R</sub>	150	V
Average Forward Rectified Output Current	Per Leg	I <sub>O</sub>	10	A
	Total		20	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half-Sine-Wave		I <sub>FSM</sub>	150	A
Junction Capacitance (Note 4)		C <sub>J</sub>	320	pF
Junction Temperature		T <sub>J</sub>	-55 ~ +175	°C
Storage Temperature		T <sub>STG</sub>	-55 ~ +175	°C

## ■ THERMAL CHARACTERISTICS

PARAMETER		SYMBOL	RATINGS	UNIT
Junction to Ambient		θ <sub>JA</sub>	60	°C/W
Junction to Case	TO-220/TO-263	θ <sub>JC</sub>	2	°C/W
	TO-220F/TO-220F1		4	°C/W

## ■ ELECTRICAL CHARACTERISTICS

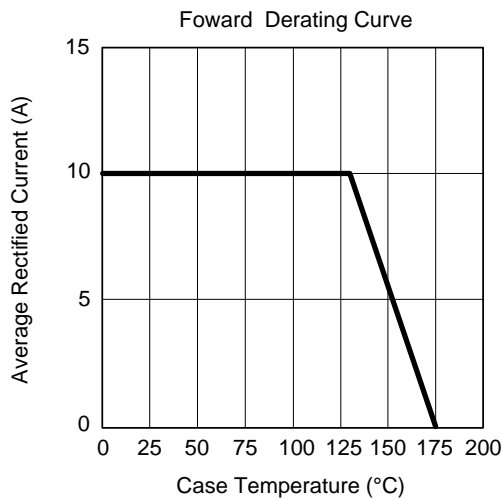
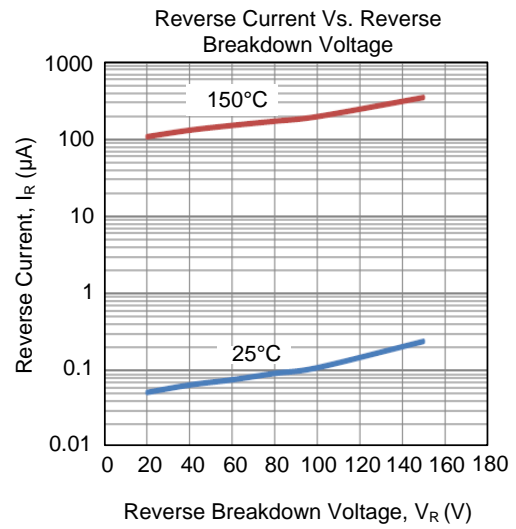
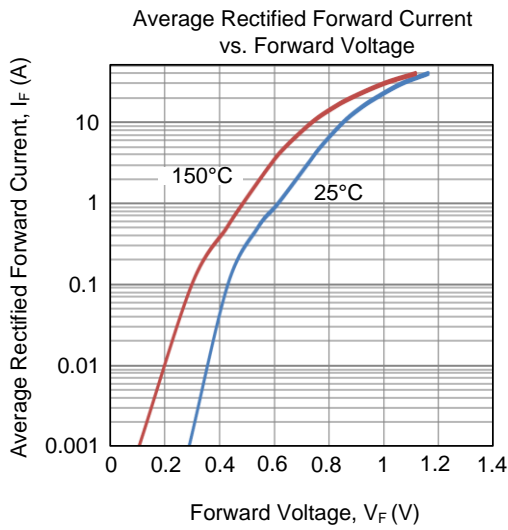
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Instantaneous Forward Voltage Drop (Note 3)	V <sub>F</sub>	I <sub>F</sub> =10A, T <sub>C</sub> =25°C			0.92	V
		I <sub>F</sub> =10A, T <sub>C</sub> =125°C			0.8	V
		I <sub>F</sub> =20A, T <sub>C</sub> =25°C			1.05	V
		I <sub>F</sub> =20A, T <sub>C</sub> =125°C			1	V
Instantaneous Reverse Current (Note 3)	I <sub>R</sub>	Rated DC Voltage, T <sub>C</sub> =25°C			0.20	mA
		Rated DC Voltage, T <sub>C</sub> =125°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.

- 2.0µs Pulse Width, f = 1.0KHz.
- Pulse Test: Pulse Width=300µs, Duty Cycle≤ 2.0%.
- Applied V<sub>R</sub> = 4.0V and f = 1.0MHz.

■ **TYPICAL CHARACTERISTICS**



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