



## MBR30150C

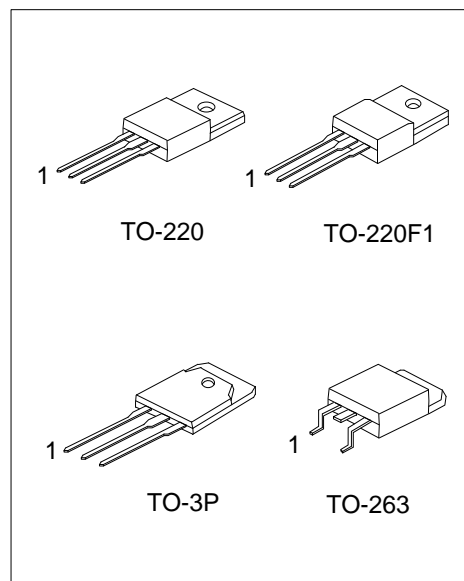
DIODE

### SCHOTTKY BARRIER RECTIFIER

#### FEATURES

- \* 30 amps total (15 amps per diode leg)
- \* Guard ring for transient protection
- \* Low forward voltage drop
- \* High surge capability
- \* Low power loss/High efficiency

#### SYMBOL



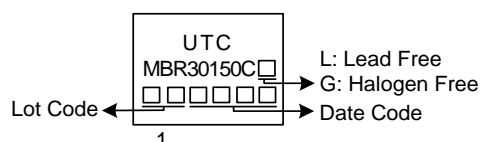
#### ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MBR30150CL-TA3-T	MBR30150CG-TA3-T	TO-220	A	K	A	Tube
MBR30150CL-TF1-T	MBR30150CG-TF1-T	TO-220F1	A	K	A	Tube
MBR30150CL-TQ2-T	MBR30150CG-TQ2-T	TO-263	A	K	A	Tube
MBR30150CL-TQ2-R	MBR30150CG-TQ2-R	TO-263	A	K	A	Tape Reel
MBR30150CL-T3P-T	MBR30150CG-T3P-T	TO-3P	A	K	A	Tube

Note: Pin Assignment: A: Anode K: Cathode

MBR30150CG-TA3-T	(1) Packing Type (2) Package Type (3) Green Package	(1) T: Tube, R: Tape Reel (2) TA3: TO-220, TF1: TO-220F1, TQ2: TO-263 T3P: TO-3P (3) G: Halogen Free and Lead Free, L: Lead Free
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#### MARKING



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

PARAMETER		SYMBOL	RATINGS	UNIT
Maximum Repetitive Peak Reverse Voltage		V <sub>RRM</sub>	150	V
Maximum non-repetitive Peak Reverse Voltage		V <sub>RM</sub>	150	V
Maximum DC Blocking Voltage		V <sub>R</sub>	150	V
Average Forward Rectified Output Current	Per Leg	I <sub>O</sub>	15	A
	Total		30	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half-Sine-Wave		I <sub>FSM</sub>	200	A
Junction Capacitance (Note 4)		C <sub>J</sub>	300	pF
Operating Temperature		T <sub>J</sub>	-65 ~ +175	°C
Storage Temperature		T <sub>STG</sub>	-65 ~ +175	°C

Note: 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.

## ■ THERMAL RESISTANCES CHARACTERISTICS

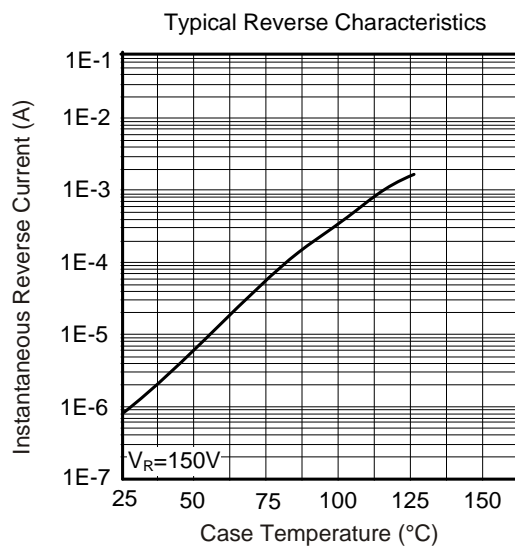
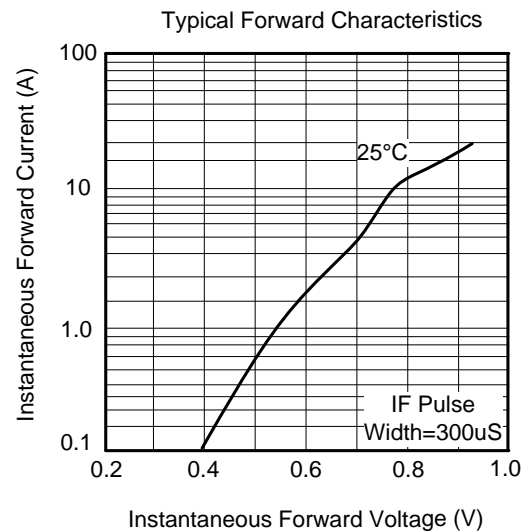
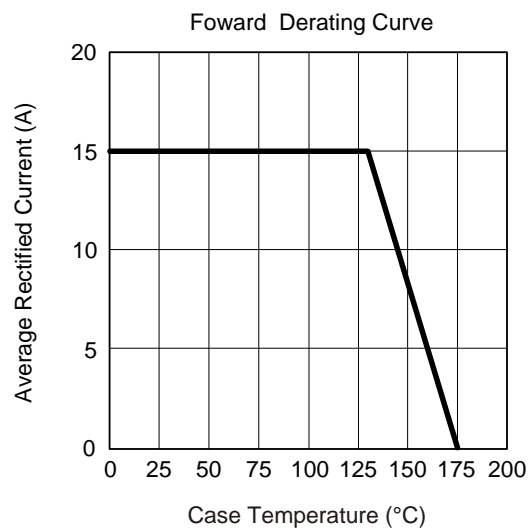
PARAMETER		SYMBOL	RATINGS	UNIT
Junction to Ambient	TO-220/TO-263	θ <sub>JA</sub>	60	°C/W
	TO-220F1			
	TO-3P		29	
Junction to Case	TO-220/TO-263	θ <sub>JC</sub>	2	°C/W
	TO-220F1		3.3	
	TO-3P		1.5	

## ■ ELECTRICAL CHARACTERISTICS (Note 2)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Instantaneous Forward Voltage Drop	V <sub>F</sub>	I <sub>F</sub> =15A, T <sub>C</sub> =25°C			0.90	V
		I <sub>F</sub> =15A, T <sub>C</sub> =125°C			0.85	V
		I <sub>F</sub> =30A, T <sub>C</sub> =25°C			1	V
		I <sub>F</sub> =30A, T <sub>C</sub> =125°C			0.95	V
Instantaneous Reverse Current	I <sub>R</sub>	Rated DC Voltage, T <sub>C</sub> =25°C			500	μA
		Rated DC Voltage, T <sub>C</sub> =125°C			20	mA

Notes: 1. 2.0μs Pulse Width, f = 1.0 KHz  
2. Pulse Test: Pulse Width = 300μs, Duty Cycle ≤ 2.0%  
3. Applied V<sub>R</sub> = 4.0V and f = 1.0 MHz

## ■ TYPICAL CHARACTERISTICS



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