



# MBR30100C

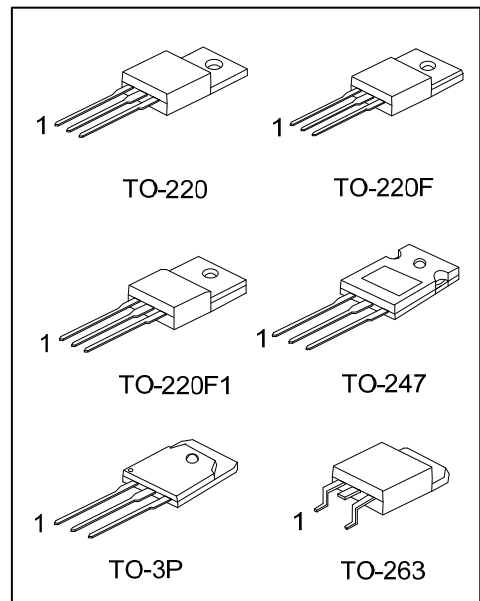
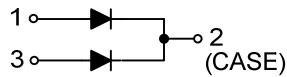
**DIODE**

## 30A 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**



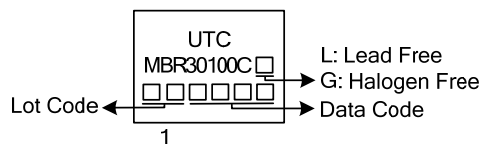
■ **ORDERING INFORMATION**

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MBR30100CL-TA3-T	MBR30100CG-TA3-T	TO-220	A	K	A	Tube
MBR30100CL-TF3-T	MBR30100CG-TF3-T	TO-220F	A	K	A	Tube
MBR30100CL-TF1-T	MBR30100CG-TF1-T	TO-220F1	A	K	A	Tube
MBR30100CL-T3P-T	MBR30100CG-T3P-T	TO-3P	A	K	A	Tube
MBR30100CL-T47-T	MBR30100CG-T47-T	TO-247	A	K	A	Tube
MBR1060CL-TQ2-T	MBR1060CG-TQ2-T	TO-263	A	K	A	Tube
MBR1060CL-TQ2-R	MBR1060CG-TQ2-R	TO-263	A	K	A	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

<p>MBR30100CL-TA3-T</p>	<p>(1) T: Tube, R: Tape Reel                  (2) TA3: TO-220, TF3: TO-220F, TF1: TO-220F1                  T47: TO-247, T3P: TO-3P, TQ2: TO-263                  (3) L: Lead Free, G: Halogen Free and Lead Free</p>
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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>	100	V
Maximum non-repetitive Peak Reverse Voltage	V <sub>RM</sub>	100	V
Maximum DC Blocking Voltage	V <sub>R</sub>	100	V
Average Forward Rectified Output Current	Per Leg	15	A
	Total	30	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half-Sine-Wave	I <sub>FSM</sub>	275	A
Junction Capacitance (Note 3)	C <sub>J</sub>	300	pF
Operating Temperature	T <sub>J</sub>	-65 ~ +150	°C
Storage Temperature	T <sub>STG</sub>	-65 ~ +150	°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 DATA

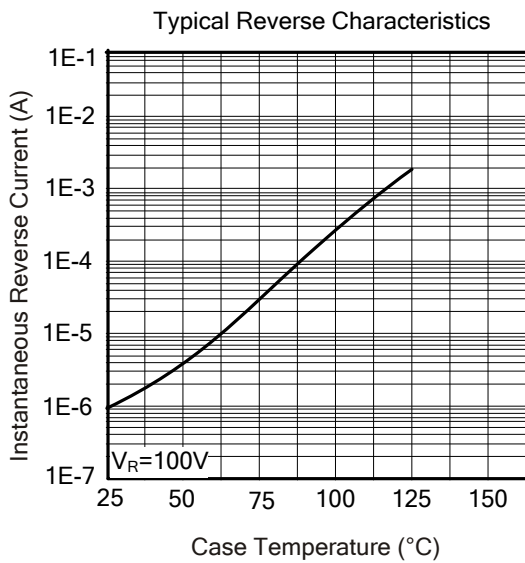
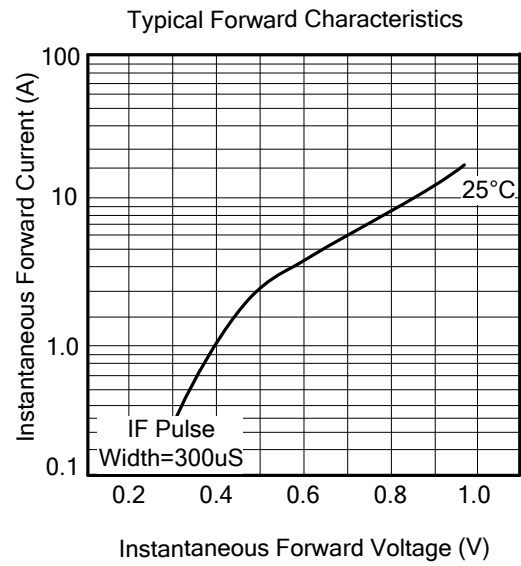
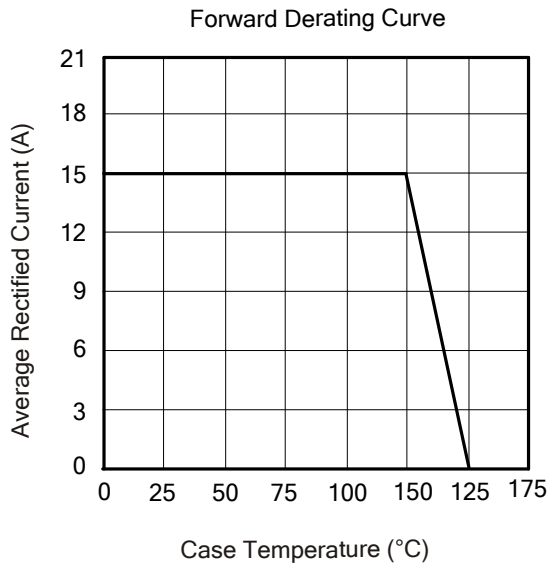
PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Ambient	θ <sub>JA</sub>	62.5	°C/W
		29	
		35	
		TO-220/TO-220F TO-220F1/TO-263	
Junction to Case	θ <sub>JC</sub>	2	°C/W
		5	
		1.5	
		1.45	
		TO-220/TO-263 TO-220F/TO-220F1 TO-3P TO-247	

■ ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Instantaneous Forward Voltage Drop (Note 2)	V <sub>F</sub>	I <sub>F</sub> =15A, T <sub>C</sub> =25°C			0.85	V
		I <sub>F</sub> =15A, T <sub>C</sub> =125°C			0.75	V
		I <sub>F</sub> =30A, T <sub>C</sub> =25°C			1.10	V
		I <sub>F</sub> =30A, T <sub>C</sub> =125°C			1.05	V
Instantaneous Reverse Current (Note 2)	I <sub>R</sub>	Rated DC Voltage, T <sub>C</sub> =25°C			100	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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