



# MBR10100C

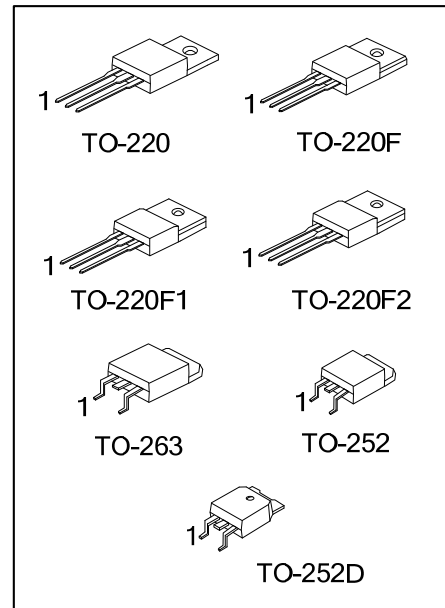
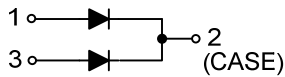
**DIODE**

## SCHOTTKY BARRIER RECTIFIER

### FEATURES

- \* 10 amps total (5 amps per diode leg)
- \* Guard ring for transient protection
- \* Low forward voltage drop
- \* High surge capability
- \* Low power loss/High efficiency

### SYMBOL



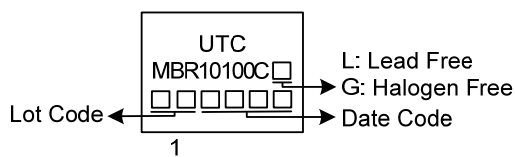
### ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MBR10100CL-TA3-T	MBR10100CG-TA3-T	TO-220	A	K	A	Tube
MBR10100CL-TF1-T	MBR10100CG-TF1-T	TO-220F1	A	K	A	Tube
MBR10100CL-TF2-T	MBR10100CG-TF2-T	TO-220F2	A	K	A	Tube
MBR10100CL-TF3-T	MBR10100CG-TF3-T	TO-220F	A	K	A	Tube
MBR10100CL-TN3-R	MBR10100CG-TN3-R	TO-252	A	K	A	Tape Reel
MBR10100CL-TND-R	MBR10100CG-TND-R	TO-252D	A	K	A	Tape Reel
MBR10100CL-TQ2-T	MBR10100CG-TQ2-T	TO-263	A	K	A	Tube
MBR10100CL-TQ2-R	MBR10100CG-TQ2-R	TO-263	A	K	A	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

<p>MBR10100CG-TA3-T</p>	<p>(1) T: Tube, R: Tape Reel                  (2) TA3: TO-220, TF1: TO-220F1, TF2: TO-220F2, TF3: TO-220F, TN3: TO-252, TND: TO-252D, TQ2: TO-263                  (3) G: Halogen Free and Lead Free, L: 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	I <sub>O</sub>	5	A
	Total		10	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half-Sine-Wave		I <sub>FSM</sub>	120	A
Junction Capacitance (Note 4)		C <sub>J</sub>	350	pF
Operating Temperature		T <sub>J</sub>	-55 ~ +150	°C
Storage Temperature		T <sub>STG</sub>	-55 ~ +150	°C

■ THERMAL DATA

PARAMETER		SYMBOL	RATINGS	UNIT
Junction to Ambient	TO-220/TO-220F TO-220F1/TO-220F2 TO-263	θ <sub>JA</sub>	60	°C/W
	TO-252/TO-252D		100	
	TO-220/TO-263		2	
Junction to Case	TO-220F/TO-220F1 TO-220F2	θ <sub>JC</sub>	4	°C/W
	TO-252/TO-252D		2.5	
	TO-220/TO-263		2	

■ ELECTRICAL CHARACTERISTICS

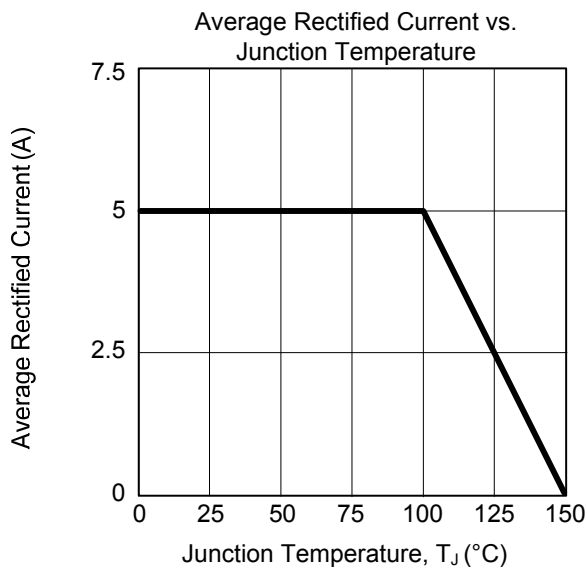
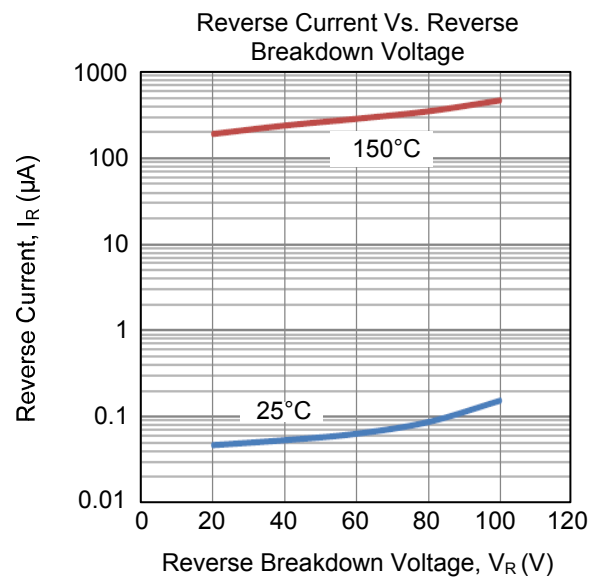
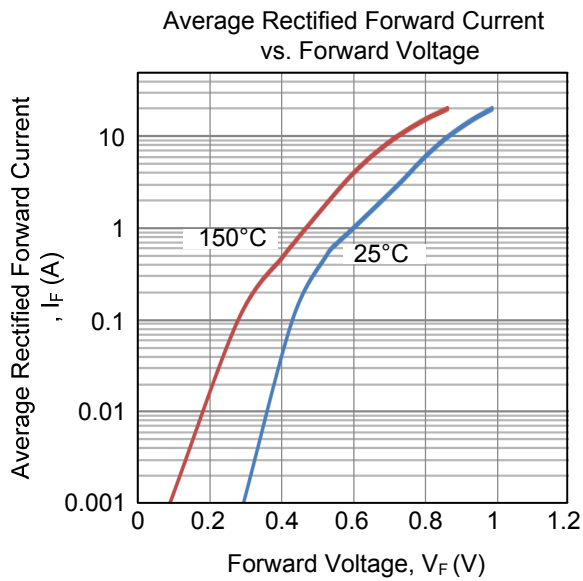
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Instantaneous Forward Voltage Drop (Note 3)	V <sub>FM</sub>	I <sub>F</sub> =5A, T <sub>C</sub> =25°C			0.85	V
		I <sub>F</sub> =5A, T <sub>C</sub> =125°C			0.80	V
		I <sub>F</sub> =10A, T <sub>C</sub> =25°C			0.95	V
		I <sub>F</sub> =10A, T <sub>C</sub> =125°C			0.90	V
Instantaneous Reverse Current (Note 3)	I <sub>RM</sub>	Rated DC Voltage, T <sub>C</sub> =25°C			100	μA
		Rated DC Voltage, T <sub>C</sub> =125°C			15	mA

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

■ TYPICAL CHARACTERISTICS



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