



# MBR10100C

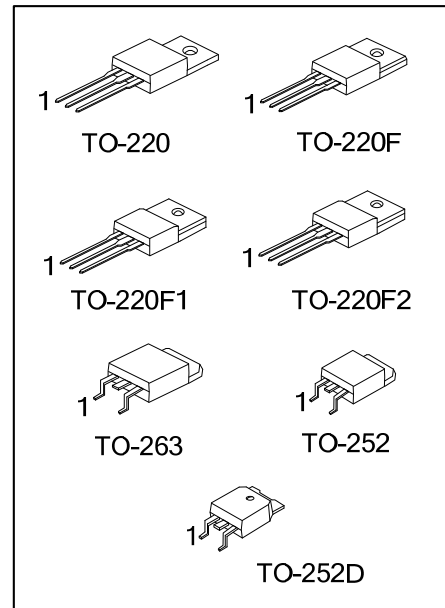
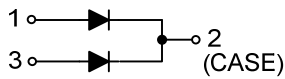
**DIODE**

## 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



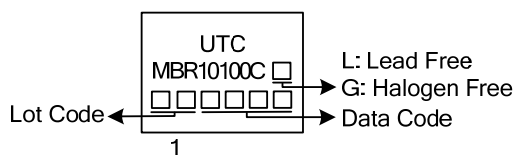
### ORDERING INFORMATION

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>MBR10100CL-TA3-T</p> <p>(1) Packing Type</p> <p>(2) Package Type</p> <p>(3) Green Package</p>	<p>(1) T: Tube, R: Tape Reel</p> <p>(2) TA3: TO-220, TF1: TO-220F1, TF2: TO-220F2, TF3: TO-220F, TN3: TO-252, TND: TO-252D, TQ2: TO-263</p> <p>(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	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>	300	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 TO-252/TO-252D	θ <sub>JC</sub>	4	°C/W
			2.5	

■ ELECTRICAL CHARACTERISTICS

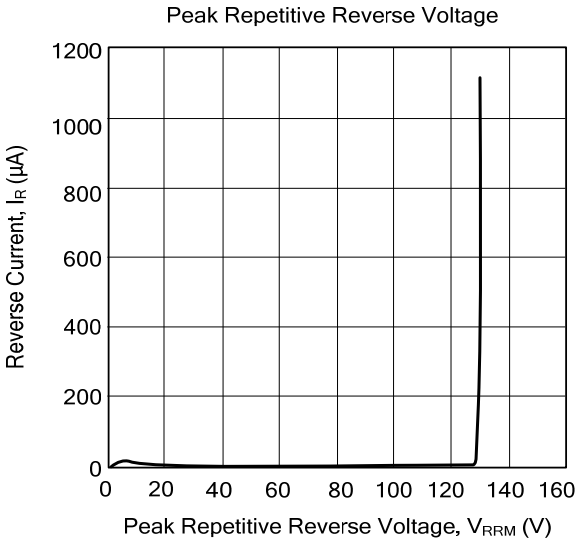
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Instantaneous Forward Voltage Drop (Note 3)	V <sub>FM</sub>	I <sub>F</sub> =5A, T <sub>C</sub> =25°C			0.85	V
		I <sub>F</sub> =5A, T <sub>C</sub> =125°C			0.80	V
		I <sub>F</sub> =10A, T <sub>C</sub> =25°C			0.95	V
		I <sub>F</sub> =10A, T <sub>C</sub> =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.

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

■ TYPICAL CHARACTERISTICS



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