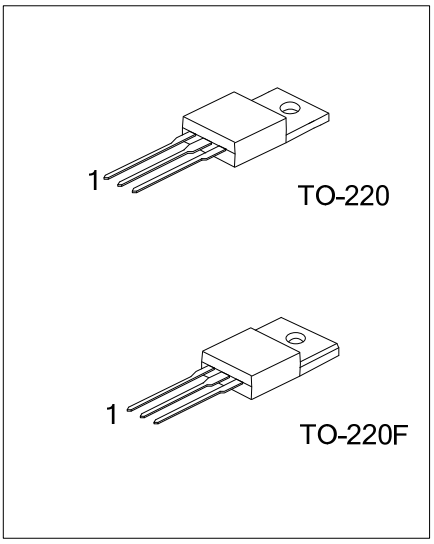
MBR1080C

Preliminary ***DIODE***

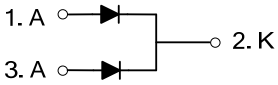
10A SCHOTTKY BARRIER RECTIFIER DIODES



■ FEATURES

* Schottky Barrier Chip
* Guard Ring Die Construction for Transient Protection
* Low Power Loss, High Efficiency
* High Surge Capability
* High Current Capability and Low Forward Voltage Drop
* For Use in Low Voltage, High Frequency Inverters, Free
* Wheeling, and Polarity Protection Applications

■ SYMBOL



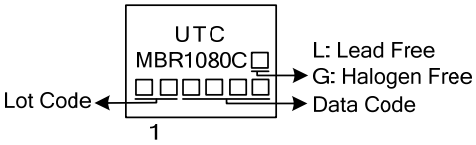
■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MBR1080CL-TA3-T	MBR1080CG-TA3-T	TO-220	A	K	A	Tube
MBR1080CL-TF3-T	MBR1080CG-TF3-T	TO-220F	A	K	A	Tube

Note: Pin Assignment: A: Anode K: Cathode

MBR1080CL-TA3-T (1)Packing Type (2)Package Type (3)Green Package	(1) T: Tube (2) TA3: TO-220, TF3: TO-220F (3) L: Lead Free, G: Halogen Free and Lead Free

■ MARKING



■ ABSOLUTE MAXIMUM RATINGS (T_A=25°C, unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNIT
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	80	V
Working Peak Reverse Voltage		V_{RWM}	80	V
Maximum DC Blocking Voltage		V_R	80	V
Average Forward Rectified Output Current (T_C=105°C)	Per Leg	I_O	5	A
	Total		10	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half-Sine-Wave		I_{FSM}	120	A
Typical Junction Capacitance (Note 2)		C_J	300	pF
Operating Temperature		T_J	-55 ~ +150	°C
Storage Temperature		T_{STG}	-55 ~ +150	°C

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. Applied V_R = 4.0V and f = 1.0MHz

■ THERMAL CHARACTERISTICS (PER LEG)

PARAMETER		SYMBOL	RATINGS	UNIT
Typical Thermal Resistance	TO-220	θ_{JC}	2	°C/W
	TO-220F		4	°C/W

■ ELECTRICAL CHARACTERISTICS (PER LEG)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage	$V_{(BR)R}$	I_R=0.50mA	80			V
Instantaneous Forward Voltage Drop	V_{FM}	I_F=5A, T_C=25°C			0.85	V
		I_F=5A, T_C=125°C			0.75	V
		I_F=10A, T_C=25°C			0.95	V
		I_F=10A, T_C=125°C			0.85	V
Peak Reverse Current at Rated DC Blocking Voltage	I_{RM}	Rated DC Voltage, T_C=25°C			100	μA
		Rated DC Voltage, T_C=125°C			15	mA

Note: Pulse Test: Pulse width ≤ 300μs, Duty cycle ≤ 2%.