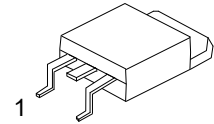
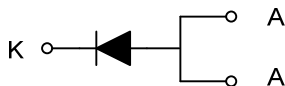


**MBR20S45**

Preliminary

DIODE**PHOTOVOLTAIC BYPASS
SCHOTTKY BARRIER
RECTIFIER****■ FEATURES**

- * High frequency operation
- * Low forward voltage drop
- * High purity, high temperature epoxy encapsulation forenhanced mechanical strength and moisture resistance
- * Guard ring for enhanced ruggedness and long term reliability

■ SYMBOL

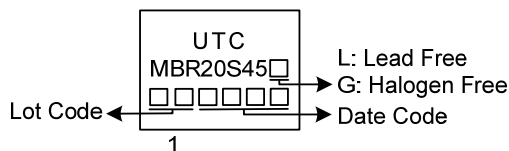
TO-263

■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MBR20S45L-TQ2-T	MBR20S45G-TQ2-T	TO-263	A	K	A	Tube
MBR20S45L-TQ2-R	MBR20S45G-TQ2-R	TO-263	A	K	A	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

MBR20S45G-TQ2-T (1)Packing Type (2)Package Type (3)Green Package	(1) T: Tube, R: Tape Reel (2) TQ2: TO-263 (3) G: Halogen Free and Lead Free, L: Lead Free
--	--

■ MARKING

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

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitance load, derate current by 20%.

PARAMETER	SYMBOL	RATINGS	UNIT
DC Blocking Voltage	V _{RM}	45	V
Working Peak Reverse Voltage	V _{RWM}	45	V
Peak Repetitive Reverse Voltage	V _{RRM}	45	V
Average Rectified Output Current @ 60Hz Half Sine Wave, 1 Cycle, T _A =25°C	I _O	20	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	320	A
Operating Junction Temperature	T _J	-55 ~ +125	°C
Storage Temperature	T _{STG}	-55 ~ +125	°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 CHARACTERISTICS (PER LEG)

PARAMETER	SYMBOL	RATINGS	UNIT
Typical Thermal Resistance	θ _{JC}	2.0	°C/W

■ ELECTRICAL CHARACTERISTICS (PER LEG) (T_A=25°C unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage	V _{(BR)R}	I _R =0.50mA	45			V
Maximum Instantaneous Forward Voltage Drop per Diode (T _J =25°C)	V _F	I _F =20A			0.51	V
Leakage Current	I _R	V _R =45V, T _J =25°C			200	μA
		V _R =45V, T _J =100°C			20	mA

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

UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. UTC reserves the right to make changes to information published in this document, including without limitation specifications and product descriptions, at any time and without notice. This document supersedes and replaces all information supplied prior to the publication hereof.