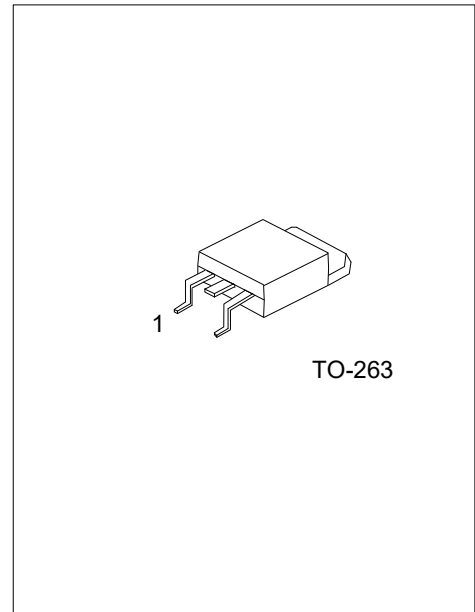
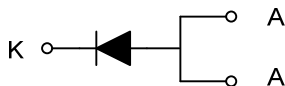


**MBR30V45**

Preliminary

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

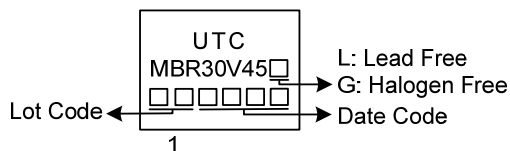
- * High frequency operation
- * Low forward voltage drop
- * High purity, high temperature epoxy encapsulation forenhanced mechanical strength and moisture resistance
- * Guard ring for enhanced ruggedness and long term reliability

■ SYMBOL**■ ORDERING INFORMATION**

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MBR30V45L-TQ2-T	MBR30V45G-TQ2-T	TO-263	A	K	A	Tube
MBR30V45L-TQ2-R	MBR30V45G-TQ2-R	TO-263	A	K	A	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

MBR30V45G-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
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■ 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	30	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 =30A			0.55	V
Leakage Current	I _R	V _R =45V, T _J =25°C			200	μA
		V _R =45V, T _J =100°C			10	mA

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

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