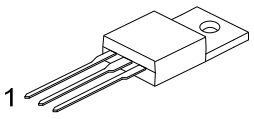
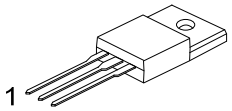
TGBR30L60

Preliminary ***DIODE***

TRENCH MOS SCHOTTKY BARRIER RECTIFIER



TO-220



TO-220F

■ DESCRIPTION

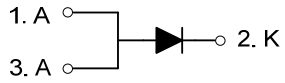
The UTC **TGBR30L60** is a trench mos schottky barrier rectifier, it uses UTC's advanced technology to provide customers with low forward voltage drop and high current capability, etc.

The UTC **TGBR30L60** suitable for free wheeling, high frequency inverters, polarity protection, and low voltage.

■ FEATURES

* Low forward voltage drop
* High current capability
* High surge capability
* High efficiency

■ SYMBOL



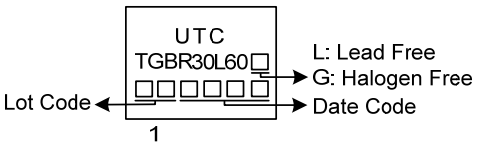
■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
TGBR30L60L-TA3-T	TGBR30L60G-TA3-T	TO-220	A	K	A	Tube
TGBR30L60L-TF3-T	TGBR30L60G-TF3-T	TO-220F	A	K	A	Tube

Note: Pin Assignment: A: Anode K: Common Cathode

TGBR30L6G-TA3-T (1)Packing Type	(1) T: Tube
(2)Package Type	(2) TA3: TO-220, TF3: TO-220F
(3)Green Package	(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 (Note 1)	V_{RM}	60	V
Working Peak Reverse Voltage	V_{RWM}	60	V
Peak Repetitive Reverse Voltage	V_{RRM}	60	V
Average Rectified Output Current	I_O	30	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	220	A
Operating Junction Temperature	T_J	-65 ~ +150	°C
Storage Temperature	T_{STG}	-65 ~ +150	°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	TO-220	θ_{JC}	2	°C/W
	TO-220F		4	°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	60			V
Forward Voltage Drop	V_{FM}	I_F=5A, T_C=25°C		0.40		V
		I_F=5A, T_C=125°C		0.30		V
		I_F=15A, T_C=25°C		0.46		V
		I_F=15A, T_C=125°C		0.39		V
		I_F=30A, T_C=25°C		0.52	0.65	V
		I_F=30A, T_C=125°C		0.46	0.60	V
Leakage Current	I_{RM}	V_R=60V, T_C=25°C		20	300	μA
		V_R=60V, T_C=125°C		10	100	mA

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