

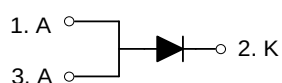
**TGBR10U60****Preliminary****DIODE****TRENCH MOS SCHOTTKY
BARRIER RECTIFIER****DESCRIPTION**

The UTC **TGBR10U60** 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 **TGBR10U60** suitable for free wheeling, high frequency inverters, polarity protection, and low voltage.

FEATURES

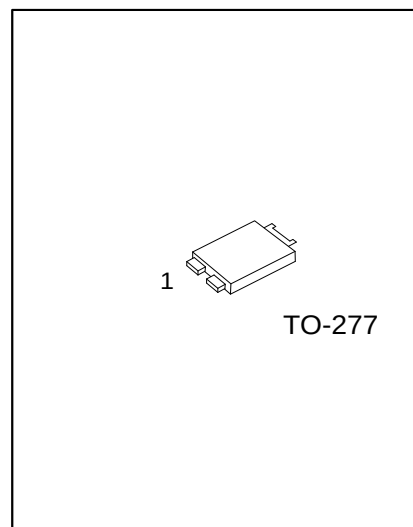
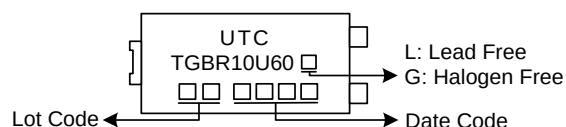
- * Ultra low forward voltage drop
- * High current capability
- * High surge capability
- * High efficiency

SYMBOL**ORDERING INFORMATION**

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
TGBR10U60L-T27-R	TGBR10U60G-T27-R	TO-277	A	K	A	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

TGBR10U60G-T27-R (1) Packing Type (2) Package Type (3) Green Package	(1) R: Tape Reel (2) T27: TO-227 (3) G: Halogen Free and Lead Free, L: Lead Free
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MARKING

■ ABSOLUTE MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$ 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	10	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	180	A
Operating Junction Temperature	T_J	-65 ~ +150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-65 ~ +150	$^{\circ}\text{C}$

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 DATA (PER LEG)

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Ambient	θ_{JA}	73 (Note 3)	$^{\circ}\text{C}/\text{W}$

Note: Mounted on an FR4 PCB, single-sided copper, with 100 cm² copper pad area.

■ ELECTRICAL CHARACTERISTICS (PER LEG) ($T_A=25^{\circ}\text{C}$ unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R=0.50\text{mA}$	60			V
Forward Voltage Drop	V_{FM}	$I_F=10\text{A}$, $T_C=25^{\circ}\text{C}$			0.48	V
		$I_F=10\text{A}$, $T_C=125^{\circ}\text{C}$			0.46	V
Leakage Current	I_{RM}	$V_R=60\text{V}$, $T_C=25^{\circ}\text{C}$			500	μA
		$V_R=60\text{V}$, $T_C=125^{\circ}\text{C}$			100	mA

Note: Pulse Test: Pulse width $\leq 300\mu\text{s}$, Duty cycle $\leq 2\%$.

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