



TGBR10S60

Preliminary

DIODE

TRENCH MOS SCHOTTKY BARRIER RECTIFIER

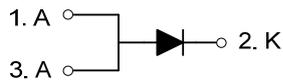
DESCRIPTION

The UTC **TGBR10S60** is a trench mos schottky barrier rectifier, it uses UTC's advanced technology to provide customers with low forward voltage drop and high switching speed, etc.

FEATURES

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

SYMBOL

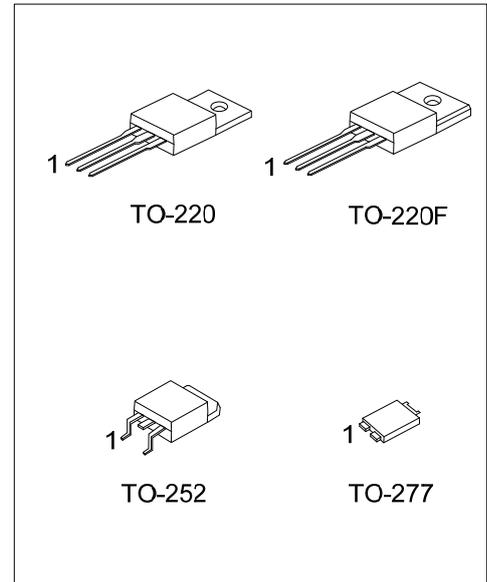


ORDERING INFORMATION

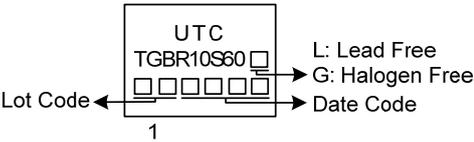
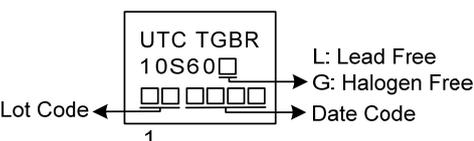
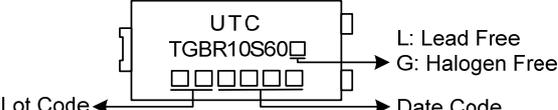
Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
TGBR10S60L-TA3-T	TGBR10S60G-TA3-T	TO-220	A	K	A	Tube
TGBR10S60L-TF3-T	TGBR10S60G-TF3-T	TO-220F	A	K	A	Tube
TGBR10S60L-TN3-R	TGBR10S60G-TN3-R	TO-252	A	K	A	Tape Reel
TGBR10S60L-T27-R	TGBR10S60G-T27-R	TO-277	A	K	A	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

<p>TGBR10S60G-TA2-T</p> <p>(1)Packing Type</p> <p>(2)Package Type</p> <p>(3)Green Package</p>	<p>(1) T: Tube, R: Tape Reel</p> <p>(2) TA3: TO-220, TF3: TO-220F, TN3: TO-252 T27: TO-277</p> <p>(3) G: Halogen Free and Lead Free, L: Lead Free</p>
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MARKING

PACKAGE	MARKING
TO-220 / TO-220F	
TO-252	
TO-277	

■ 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}	150	A
Operating Junction Temperature	T_J	-40 ~ +125	$^{\circ}\text{C}$
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 CHARACTERISTICS (PER LEG)

PARAMETER	SYMBOL	RATINGS	UNIT
Typical Thermal Resistance	TO-220	2	$^{\circ}\text{C}/\text{W}$
	TO-220F	4	$^{\circ}\text{C}/\text{W}$
	TO-252	6	$^{\circ}\text{C}/\text{W}$
	TO-277	13 (Note)	$^{\circ}\text{C}/\text{W}$

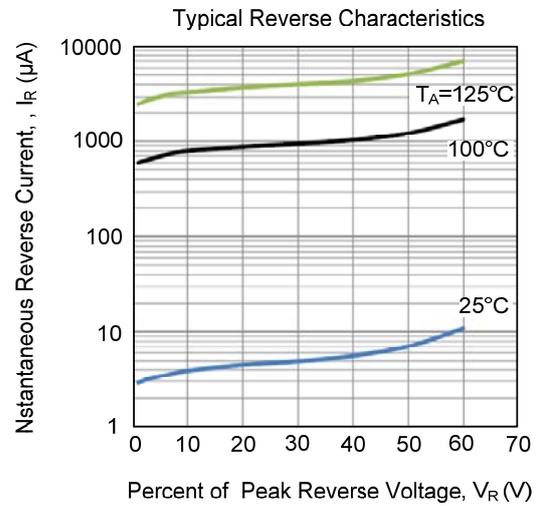
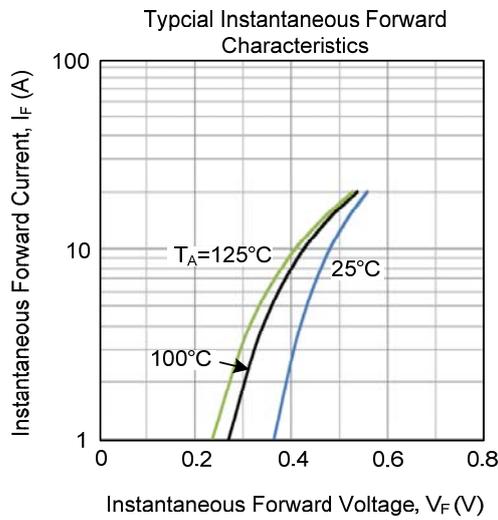
Note: FR-4 PCB, 2 oz Copper. Minimum recommended pad layout.

■ 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}	$I_F=10\text{A}, T_C=25^{\circ}\text{C}$			0.5	V
		$I_F=10\text{A}, T_C=100^{\circ}\text{C}$			0.48	V
Leakage Current	I_{RM}	$V_R=60\text{V}, T_C=25^{\circ}\text{C}$			100	μA
		$V_R=60\text{V}, T_C=100^{\circ}\text{C}$			100	mA

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

■ TYPICAL CHARACTERISTICS



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