



**TGBR5L100**

**DIODE**

**TRENCH MOS SCHOTTKY  
BARRIER RECTIFIER**

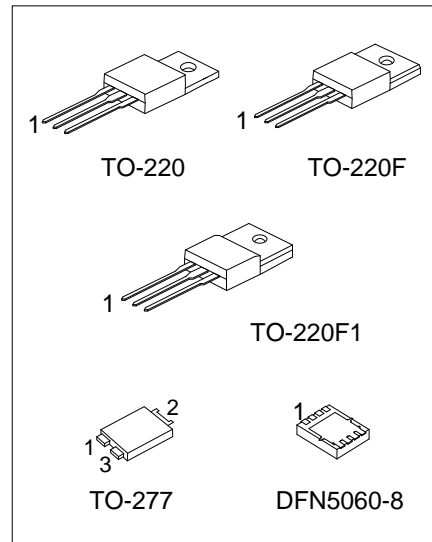
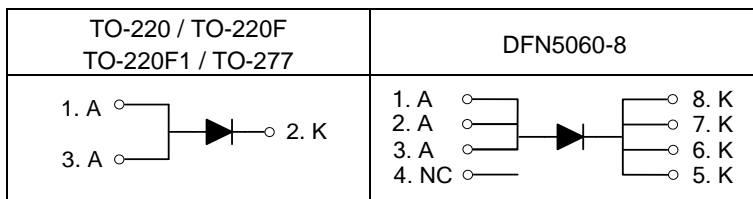
■ **DESCRIPTION**

The UTC **TGBR5L100** 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**

- \* Low forward voltage drop
- \* High switching speed

■ **SYMBOL**



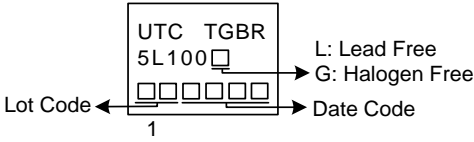
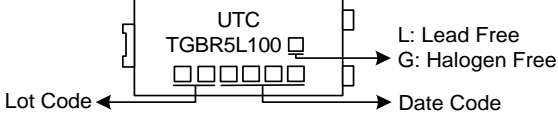
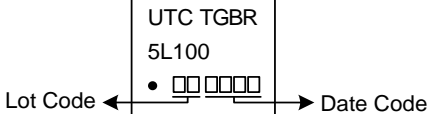
■ **ORDERING INFORMATION**

Ordering Number		Package	Pin Assignment								Packing
Lead Free	Halogen Free		1	2	3	4	5	6	7	8	
TGBR5L100L-TA3-T	TGBR5L100G-TA3-T	TO-220	A	K	A	-	-	-	-	-	Tube
TGBR5L100L-TF1-T	TGBR5L100G-TF1-T	TO-220F1	A	K	A						Tube
TGBR5L100L-TF3-T	TGBR5L100G-TF3-T	TO-220F	A	K	A	-	-	-	-	-	Tube
TGBR5L100L-T27-T	TGBR5L100G-T27-T	TO-277	A	K	A						Tape Reel
TGBR5L100L-K08-5060-R	TGBR5L100G-K08-5060-R	DFN5060-8	A	A	A	NC	K	K	K	K	Tape Reel

Note: Pin Assignment: A: Anode K: Common Cathode NC: No Comment

<p>TGBR5L100G-TA3-T</p>	<p>(1) T: Tube, R: Tape Reel                  (2) TA3: TO-220, TF1: TO-220F1, TF3: TO-220F, T27: TO-277, K08-5060: DFN5060-8                  (3) G: Halogen Free and Lead Free, L: Lead Free</p>
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■ MARKING

PACKAGE	MARKING
<p>TO-220 / TO-220F TO-220F1</p>	 <p>Lot Code ← → Date Code</p> <p>1</p> <p>L: Lead Free G: Halogen Free</p>
<p>TO-277</p>	 <p>Lot Code ← → Date Code</p> <p>L: Lead Free G: Halogen Free</p>
<p>DFN5060-8</p>	 <p>Lot Code ← → Date Code</p>

### ■ ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=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 <sub>RM</sub>	100	V
Working Peak Reverse Voltage	V <sub>RWM</sub>	100	V
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	100	V
Average Rectified Output Current	I <sub>O</sub>	5	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I <sub>FSM</sub>	55	A
Operating Junction Temperature	T <sub>J</sub>	-65 ~ +150	°C
Storage Temperature	T <sub>STG</sub>	-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	2	°C/W
	TO-220F	4	°C/W
	TO-220F1		
	TO-277	4 (Note)	°C/W
	DFN5060-8	θ <sub>JA</sub>	4.5 (Note)

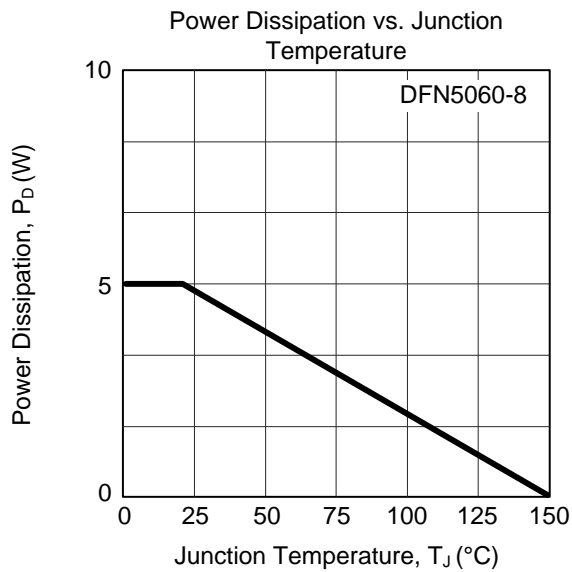
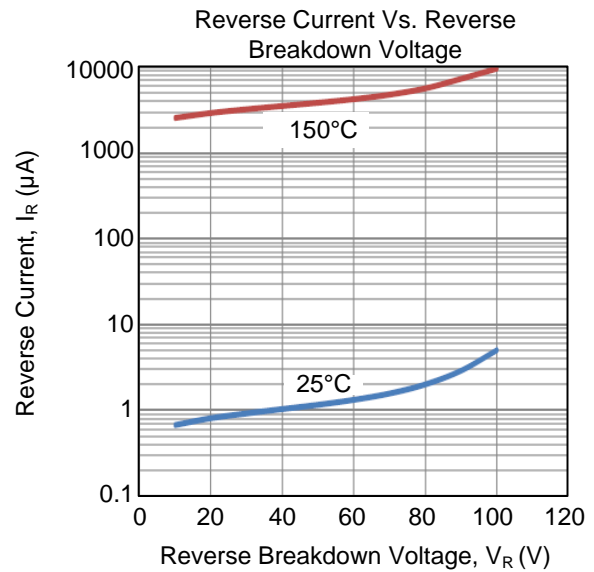
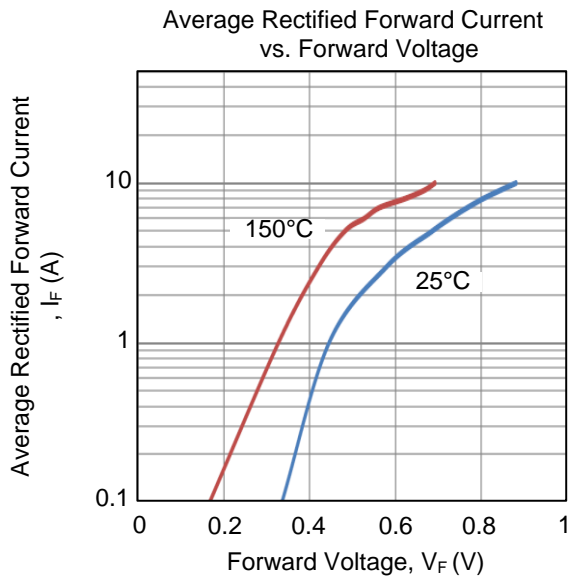
Note: FR-4 PCB, 2 oz Copper. Minimum recommended pad layout.

### ■ ELECTRICAL CHARACTERISTICS (PER LEG) (T<sub>A</sub>=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage	V <sub>(BR)R</sub>	I <sub>R</sub> =0.50mA	100			V
Forward Voltage Drop	V <sub>FM</sub>	I <sub>F</sub> =1A, T <sub>J</sub> =25°C		0.45		V
		I <sub>F</sub> =1A, T <sub>J</sub> =150°C		0.33		V
		I <sub>F</sub> =3A, T <sub>J</sub> =25°C		0.58		V
		I <sub>F</sub> =3A, T <sub>J</sub> =150°C		0.46		V
		I <sub>F</sub> =5A, T <sub>J</sub> =25°C		0.70	0.78	V
		I <sub>F</sub> =5A, T <sub>J</sub> =150°C		0.52	0.69	V
Leakage Current	I <sub>RM</sub>	V <sub>R</sub> =100V, T <sub>J</sub> =25°C			200	μA
		V <sub>R</sub> =100V, T <sub>J</sub> =150°C			15	mA

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

## ■ TYPICAL CHARACTERISTICS



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