



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

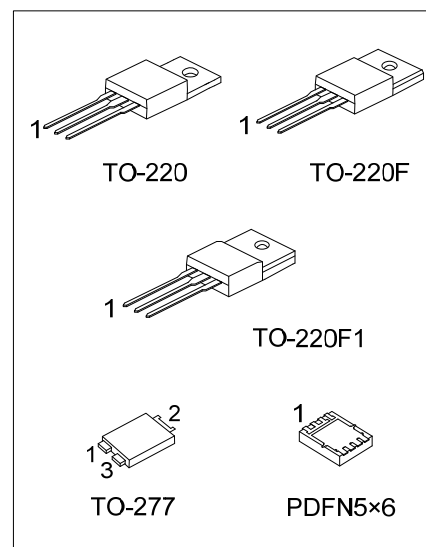
TO-220 / TO-220F TO-220F1 / TO-277	PDFN5×6

■ 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-R	TGBR5L100G-T27-R	TO-277	A	K	A	-	-	-	-	-	Tape Reel
TGBR5L100L-P5060-R	TGBR5L100G-P5060-R	PDFN5×6	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</p> <p>(2) TA3: TO-220, TF1: TO-220F1, TF3: TO-220F, T27: TO-277, P5060: PDFN5×6</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-220F1	<div><div>UTC TGBR 5L100</div><div>Lot Code ← <div>□□□□□□</div> → Date Code</div><div>1</div><div>L: Lead Free G: Halogen Free</div></div>
TO-277	<div><div>UTC TGBR5L100</div><div>Lot Code ← <div>□□□□□□</div> → Date Code</div><div>L: Lead Free G: Halogen Free</div></div>
PDFN5×6	<div><div>UTC TGBR 5L100</div><div>Lot Code ← <div>• □□□□□□</div> → Date Code</div></div>

■ 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}	100	V
Working Peak Reverse Voltage	V _{RWM}	100	V
Peak Repetitive Reverse Voltage	V _{RRM}	100	V
Average Rectified Output Current	I _O	5	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	55	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	2	°C/W
	TO-220F	4	°C/W
	TO-220F1		
	TO-277	4 (Note)	°C/W
	PDFN5×6	θ _{JA} 4.5 (Note)	°C/W

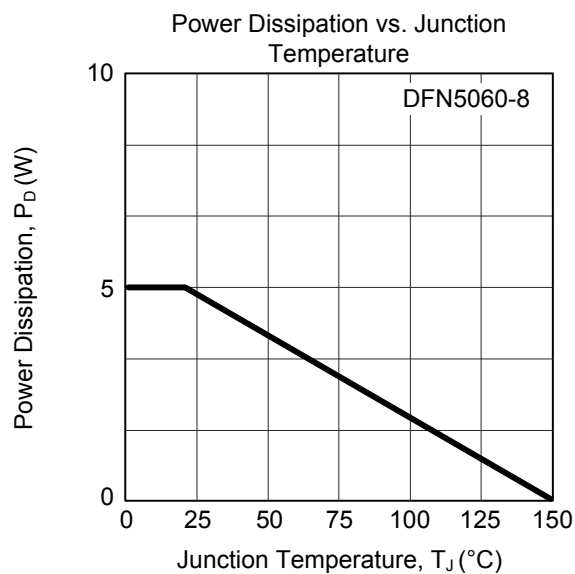
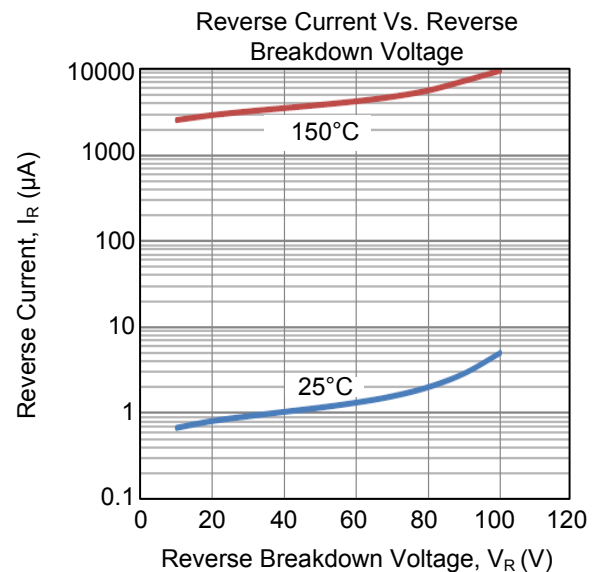
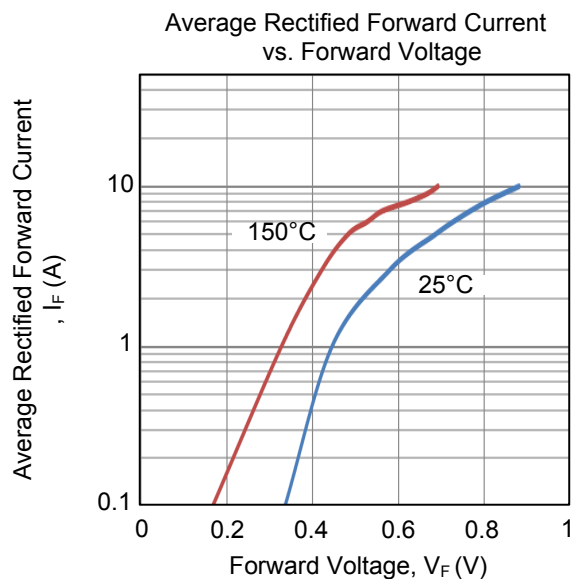
Note: FR-4 PCB, 2 oz Copper. Minimum recommended pad layout.

■ 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	100			V
Forward Voltage Drop	V _{FM}	I _F =1A, T _J =25°C		0.45		V
		I _F =1A, T _J =150°C		0.33		V
		I _F =3A, T _J =25°C		0.58		V
		I _F =3A, T _J =150°C		0.46		V
		I _F =5A, T _J =25°C		0.70	0.78	V
		I _F =5A, T _J =150°C		0.52	0.69	V
Leakage Current	I _{RM}	V _R =100V, T _J =25°C			200	μA
		V _R =100V, T _J =150°C			15	mA

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

■ TYPICAL CHARACTERISTICS



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