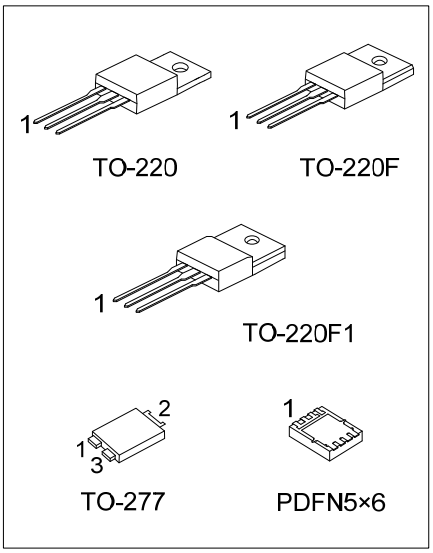
TGBR5L100

DIODE

TRENCH MOS SCHOTTKY BARRIER RECTIFIER



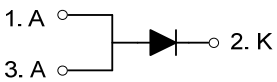
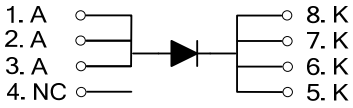
■ DESCRIPTION

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
	

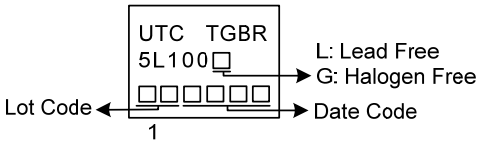
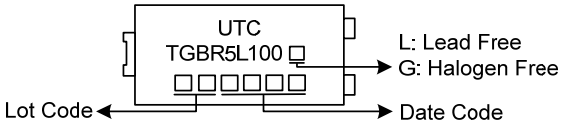
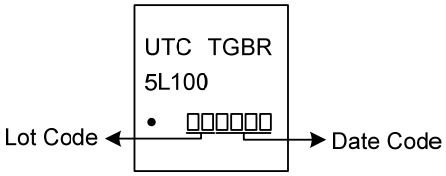
■ ORDERING INFORMATION

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

TGBR5L100G-TA3-T (1)Packing Type (2)Package Type (3)Green Package	(1) T: Tube, R: Tape Reel (2) TA3: TO-220, TF1: TO-220F1, TF3: TO-220F, T27: TO-277, P5060: PDFN5×6 (3) G: Halogen Free and Lead Free, L: Lead Free

■ MARKING

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

■ 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
WorkingPeak 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	θ_{JC}	2	°C/W
	TO-220F TO-220F1		4	°C/W
	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