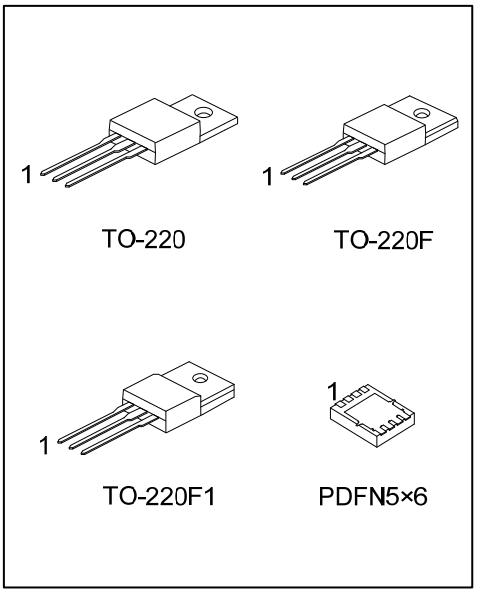
TGBR30L100

DIODE

TRENCH MOS SCHOTTKY BARRIER RECTIFIER



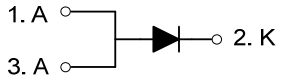
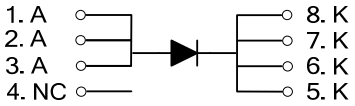
■ DESCRIPTION

The UTC **TGBR30L100** 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

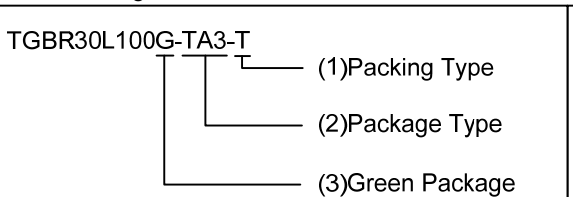
■ SYMBOL

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	
TGBR30L100L-TA3-T	TGBR30L100G-TA3-T	TO-220	A	K	A	-	-	-	-	-	Tube
TGBR30L100L-TF1-T	TGBR30L100G-TF1-T	TO-220F1	A	K	A	-	-	-	-	-	Tube
TGBR30L100L-TF3-T	TGBR30L100G-TF3-T	TO-220F	A	K	A	-	-	-	-	-	Tube
TGBR30L100L-P5060-R	TGBR30L100G-P5060-R	PDFN5×6	A	A	A	NC	K	K	K	K	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

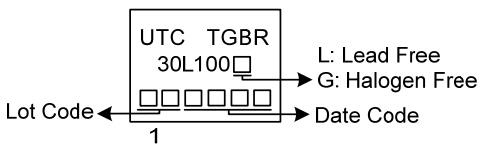
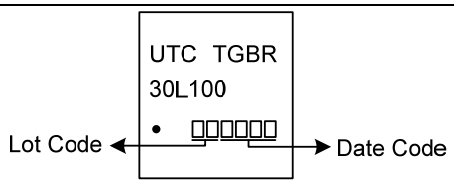


(1) T: Tube, R: Tape Reel

(2) TA3: TO-220, TF1: TO-220F1, TF3: TO-220F, TN3: TO-252, P5060: PDFN5×6

(3) G: Halogen Free and Lead Free, L: Lead Free

■ MARKING

TO-220 / TO-220F1 / TO-220F	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	30	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	250	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
	PDFN5×6		2.5	°C/W

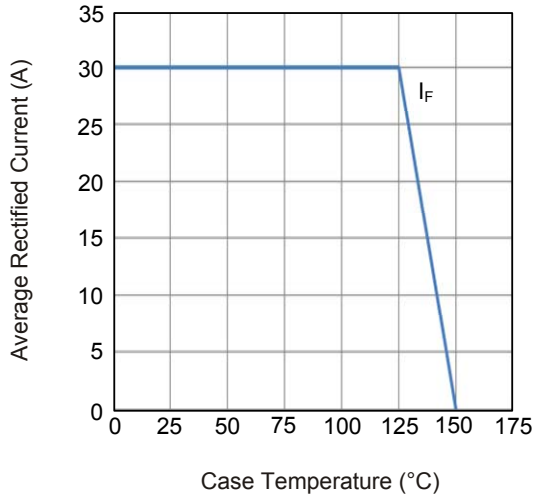
■ ELECTRICAL CHARACTERISTICS (PER LEG) (T_A=25°C, unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage	$V_{(BR)R}$	I_R=0.5mA	100			V
Forward Voltage Drop	V_{FM}	I_F=30A, T_J=25°C			0.9	V
		I_F=30A, T_J=125°C			0.8	V
Leakage Current	I_{RM}	V_R=100V, T_J=25°C			100	μA
		V_R=100V, T_J=125°C			35	mA

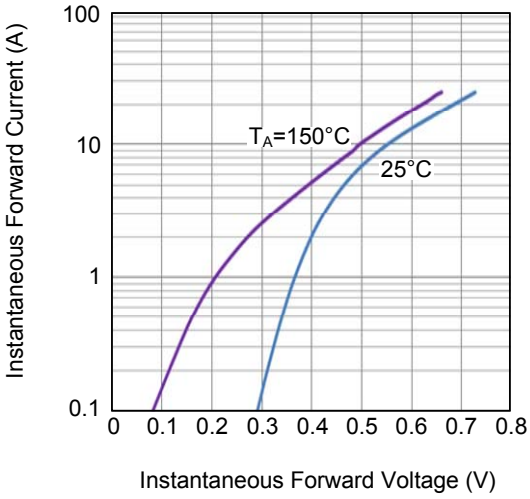
Note: Pulse Test: Pulse width ≤ 300μs, Duty cycle ≤ 2%.

■ TYPICAL CHARACTERISTICS

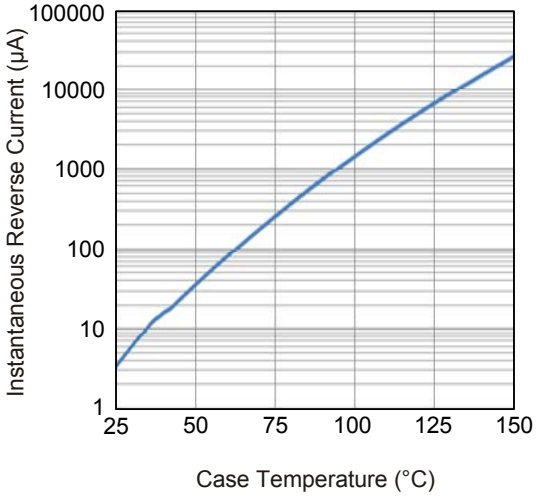
Forward Derating Curve



Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance Vs. Reverse Voltage