



## TGBR10L45C

Preliminary

DIODE

### DUAL TRENCH MOS SCHOTTKY BARRIER RECTIFIER

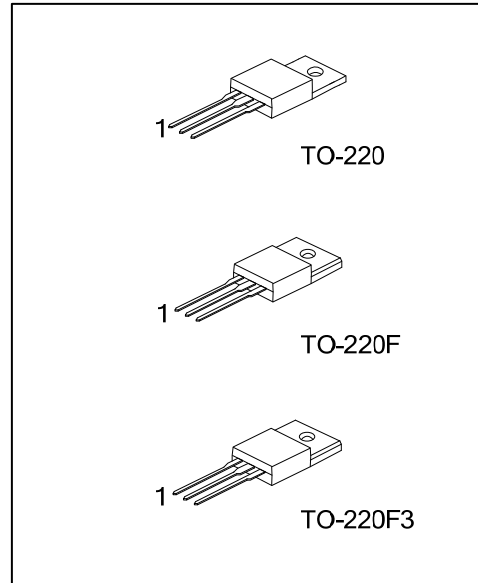
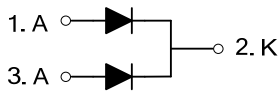
#### DESCRIPTION

The UTC **TGBR10L45C** is a dual 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



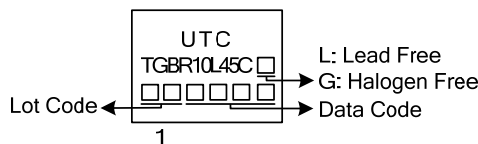
#### ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
TGBR10L45CL-TA3-T	TGBR10L45CG-TA3-T	TO-220	A	K	A	Tube
TGBR10L45CL-TF3-T	TGBR10L45CG-TF3-T	TO-220F	A	K	A	Tube
TGBR10L45CL-TF3T-T	TGBR10L45CG-TF3T-T	TO-220F3	A	K	A	Tube

Note: Pin Assignment: A: Anode K: Cathode

TGBR10L45CL-TA3-T	(1)Packing Type	(1) T: Tube
	(2)Package Type	(2) TA3: TO-220, TF3: TO-220F, TF3T: TO-220F3
	(3)Green Package	(3) L: Lead Free, G: Halogen Free and Lead Free

#### MARKING



■ 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	$V_{RM}$	45	V
Working Peak Reverse Voltage	$V_{RWM}$	45	V
Peak Repetitive Reverse Voltage	$V_{RRM}$	45	V
Average Rectified Output Current ( $T_C=140^{\circ}\text{C}$ )	Per Leg	5	A
	Total	10	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	$I_{FSM}$	90	A
Operating Junction Temperature	$T_J$	-65 ~ +175	$^{\circ}\text{C}$
Storage Temperature	$T_{STG}$	-65 ~ +175	$^{\circ}\text{C}$

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/TO-220F3	4	

■ ELECTRICAL CHARACTERISTICS (PER LEG) ( $T_A=25^{\circ}\text{C}$ , unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R=0.45\text{mA}$	45			V
Forward Voltage Drop	$V_{FM}$	$I_F=5\text{A}, T_J=25^{\circ}\text{C}$			0.61	V
		$I_F=5\text{A}, T_J=125^{\circ}\text{C}$			0.56	V
Leakage Current	$I_{RM}$	$V_R=45\text{V}, T_J=25^{\circ}\text{C}$			500	$\mu\text{A}$
		$V_R=45\text{V}, T_J=125^{\circ}\text{C}$			100	mA

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

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