

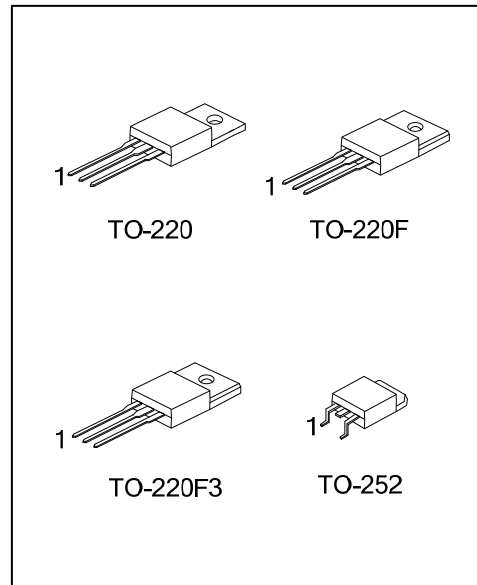


**TGBR10V50C**

Preliminary

**DIODE**

**DUAL TRENCH MOS  
SCHOTTKY BARRIER  
RECTIFIER**



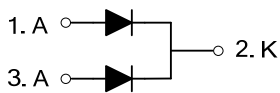
■ **DESCRIPTION**

The UTC **TGBR10V50C** 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**

- \* Very low forward voltage drop
- \* High switching speed

■ **SYMBOL**



■ **ORDERING INFORMATION**

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
TGBR10V50CL-TA3-T	TGBR10V50CG-TA3-T	TO-220	A	K	A	Tube
TGBR10V50CL-TF3-T	TGBR10V50CG-TF3-T	TO-220F	A	K	A	Tube
TGBR10V50CL-TF3T-T	TGBR10V50CG-TF3T-T	TO-220F3	A	K	A	Tube
TGBR10V50CL-TN3-R	TGBR10V50CG-TN3-R	TO-252	A	K	A	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

<p>TGBR10V50CL-TA3-T</p>	<p>(1) T: Tube, R: Tape Reel (2) TA3: TO-220, TF3: TO-220F, TF3T: TO-220F3 TN3: TO-252 (3) L: Lead Free, G: Halogen Free and Lead Free</p>
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■ **MARKING**

TO-220 / TO-220F / TO-220F3	TO-252

■ 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		$V_{RM}$	50	V
Working Peak Reverse Voltage		$V_{RWM}$	50	V
Peak Repetitive Reverse Voltage		$V_{RRM}$	50	V
Average Rectified Output Current	Per Leg	$I_o$	5	A
	Total		10	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load		$I_{FSM}$	120	A
Operating Junction Temperature		$T_J$	-65 ~ +150	$^{\circ}\text{C}$
Storage Temperature		$T_{STG}$	-65 ~ +150	$^{\circ}\text{C}$

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	$\theta_{JC}$	2	$^{\circ}\text{C}/\text{W}$
	TO-220F/TO-220F3		4	
	TO-252		6	

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R=0.50\text{mA}$	50			V
Forward Voltage Drop	$V_{FM}$	$I_F=5\text{A}, T_J=25^{\circ}\text{C}$			0.57	V
		$I_F=5\text{A}, T_J=125^{\circ}\text{C}$			0.52	V
Leakage Current	$I_{RM}$	$V_R=50\text{V}, T_J=25^{\circ}\text{C}$			300	$\mu\text{A}$
		$V_R=50\text{V}, T_J=125^{\circ}\text{C}$			30	mA

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

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