



## TGBR20V100C

DIODE

### DUAL TRENCH MOS SCHOTTKY BARRIER RECTIFIER

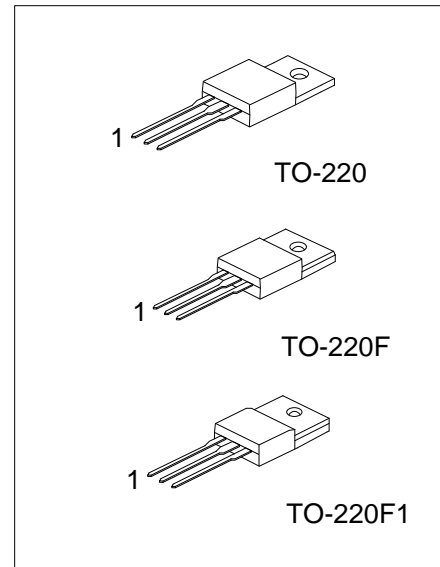
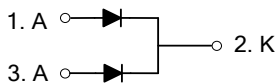
#### DESCRIPTION

The UTC **TGBR20V100C** is 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



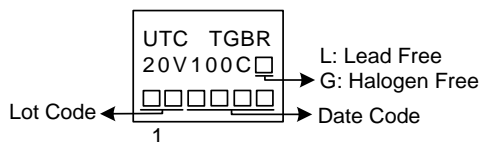
#### ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
TGBR20V100CL-TA3-T	TGBR20V100CG-TA3-T	TO-220	A	K	A	Tube
TGBR20V100CL-TF1-T	TGBR20V100CG-TF1-T	TO-220F1	A	K	A	Tube
TGBR20V100CL-TF3-T	TGBR20V100CG-TF3-T	TO-220F	A	K	A	Tube

Note: Pin Assignment: A: Anode K: Cathode

TGBR20V100CG-TA3-T	(1)Packing Type	(1) T: Tube
	(2)Package Type	(2) TA3: TO-220, TF1: TO-220F1, TF3: TO-220F
	(3)Green Package	(3) G: Halogen Free and Lead Free, L: Lead Free

#### MARKING



## ■ ABSOLUTE MAXIMUM RATINGS (PER LEG) ( $T_A=25^\circ\text{C}$ 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		$V_{RM}$	100	V
Working Peak Reverse Voltage		$V_{RWM}$	100	V
Peak Repetitive Reverse Voltage		$V_{RRM}$	100	V
Average Rectified Output Current Per Device	Per Leg	$I_o$	10	A
	Total		20	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)

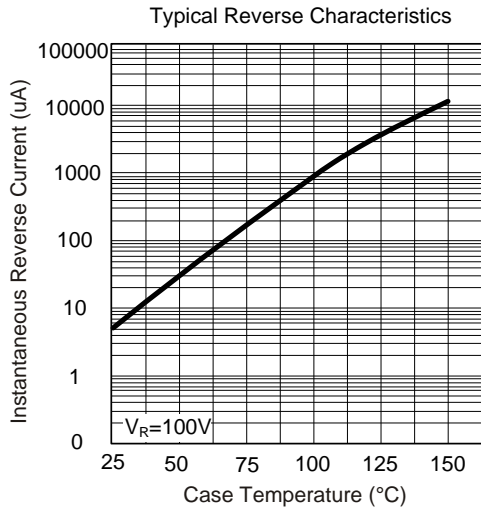
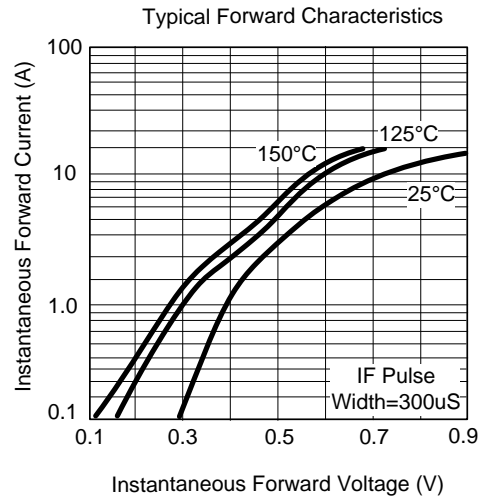
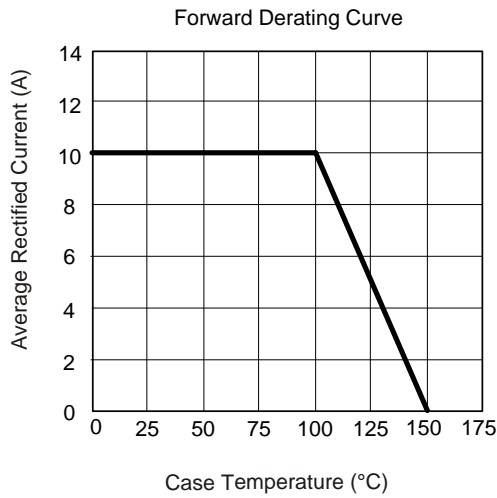
PARAMETER		SYMBOL	RATINGS	UNIT
Typical Thermal Resistance	TO-220	$\theta_{JC}$	2	$^\circ\text{C/W}$
	TO-220F		4	$^\circ\text{C/W}$
	TO-220F1			

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R=0.50\text{mA}$	100			V
Forward Voltage Drop	$V_{FM}$	$I_F=3\text{A}, T_J=25^\circ\text{C}$		0.48		V
		$I_F=3\text{A}, T_J=125^\circ\text{C}$		0.43		V
		$I_F=5\text{A}, T_J=25^\circ\text{C}$		0.56		V
		$I_F=5\text{A}, T_J=125^\circ\text{C}$		0.50		V
		$I_F=10\text{A}, T_J=25^\circ\text{C}$		0.71	0.75	V
		$I_F=10\text{A}, T_J=125^\circ\text{C}$		0.60	0.68	V
Leakage Current	$I_{RM}$	$V_R=100\text{V}, T_J=25^\circ\text{C}$		5	100	$\mu\text{A}$
		$V_R=100\text{V}, T_J=125^\circ\text{C}$		4	40	mA

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

## ■ TYPICAL CHARACTERISTICS (PER LEG)



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