

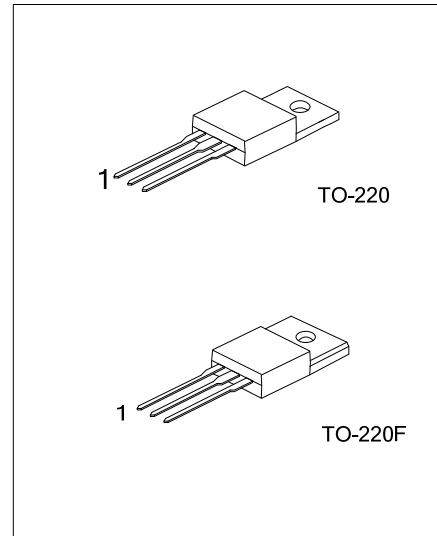


TGBR20U80C

Preliminary

DIODE

DUAL TRENCH MOS SCHOTTKY BARRIER RECTIFIER



■ DESCRIPTION

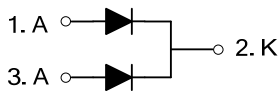
The UTC **TGBR20U80C** is a dual trench mos schottky barrier rectifier, it uses UTC's advanced technology to provide customers with low forward voltage drop and high switching speed, etc.

The UTC **TGBR20U80C** suitable for supply applications.

■ FEATURES

- * Low forward voltage drop
- * High switching speed

■ SYMBOL



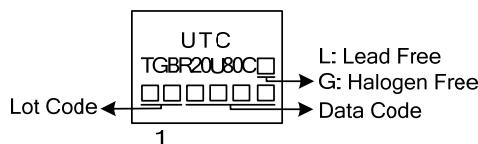
■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
TGBR20U80CL-TA3-T	TGBR20U80CG-TA3-T	TO-220	A	K	A	Tube
TGBR20U80CL-TF3-T	TGBR20U80CG-TF3-T	TO-220F	A	K	A	Tube

Note: Pin Assignment: A: Anode K: Cathode

<p>TGBR20U80CL-TA3-T</p>	<p>(1) T: Tube (2) TA3: TO-220, TF3: TO-220F (3) L: Lead Free, G: Halogen Free and Lead Free</p>
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■ 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}	80	V
Working Peak Reverse Voltage		V_{RWM}	80	V
Peak Repetitive Reverse Voltage		V_{RRM}	80	V
Average Rectified Forward Current (Rated VR-20Khz Square Wave) - 50% Duty Cycle	Per Leg	I_O	10	A
	Total		20	A
Peak Forward Surge Current - 1/2 60hz		I_{FSM}	220	A
Operating Junction Temperature		T_J	-65 ~ +150	$^\circ\text{C}$
Storage Junction 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	θ_{JC}	2	$^\circ\text{C}/\text{W}$
	TO-220F		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	$V_{(BR)R}$	$I_R=0.50\text{mA}$	80			V
Forward Voltage Drop	V_{FM}	$I_F=3\text{A}, T_J=25^\circ\text{C}$		0.40		V
		$I_F=3\text{A}, T_J=125^\circ\text{C}$		0.33		V
		$I_F=5\text{A}, T_J=25^\circ\text{C}$		0.44		V
		$I_F=5\text{A}, T_J=125^\circ\text{C}$		0.40		V
		$I_F=10\text{A}, T_J=25^\circ\text{C}$		0.54	0.60	V
		$I_F=10\text{A}, T_J=125^\circ\text{C}$		0.51	0.55	V
Leakage Current	I_{RM}	$V_R=80\text{V}, T_J=25^\circ\text{C}$		40	300	μA
		$V_R=80\text{V}, T_J=125^\circ\text{C}$		10	45	mA

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

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