



TGBR20U80

DIODE

TRENCH MOS SCHOTTKY BARRIER RECTIFIER

DESCRIPTION

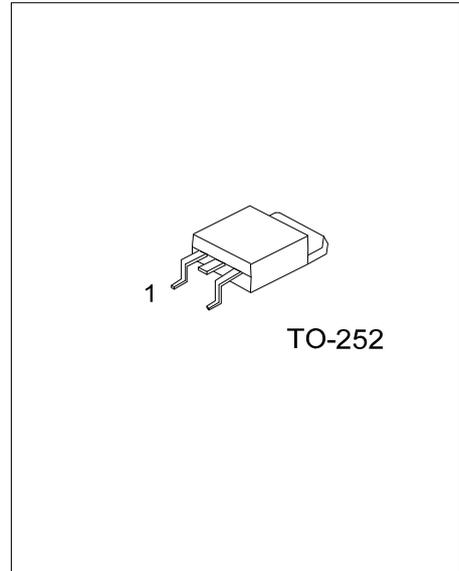
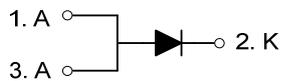
The UTC **TGBR20U80** is a trench mos schottky barrier rectifier, it uses UTC's advanced technology to provide customers with low forward voltage drop and high current capability, etc.

The UTC **TGBR20U80** suitable for free wheeling, high frequency inverters, polarity protection, and low voltage.

FEATURES

- * Ultra low forward voltage drop
- * High current capability
- * High surge capability
- * High efficiency

SYMBOL



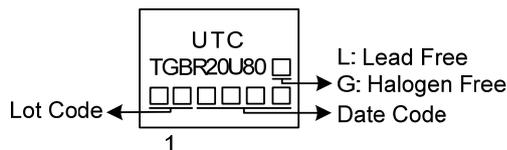
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
TGBR20U80L-TN3-R	TGBR20U80G-TN3-R	TO-252	A	K	A	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

<p>TGBR20U80G-TN3-R</p>	<p>(1) R: Tape Reel</p> <p>(2) TN3: TO-252</p> <p>(3) G: Halogen Free and Lead Free, L: Lead Free</p>
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MARKING



■ 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}	80	V
Working Peak Reverse Voltage	V _{RWM}	80	V
Peak Repetitive Reverse Voltage	V _{RPM}	80	V
Average Rectified Output Current	I _O	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	+125	°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 DATA (PER LEG)

PARAMETER	SYMBOL	RATINGS	UNIT
Typical Thermal Resistance	θ _{JC}	6	°C/W

Note: FR-4 PCB, 2 oz Copper. Minimum recommended pad layout.

■ 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 =0.1mA	80			V
Forward Voltage Drop	V _{FM}	I _F =5A, T _C =25°C		0.42		V
		I _F =5A, T _C =125°C		0.36		V
		I _F =10A, T _C =25°C		0.47		V
		I _F =10A, T _C =125°C		0.45		V
		I _F =20A, T _C =25°C		0.55	0.61	V
Leakage Current	I _{RM}	V _R =80V, T _C =25°C			300	μA
		V _R =80V, T _C =125°C			45	mA

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

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