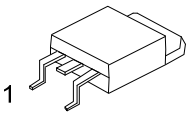
TGBR10U80

DIODE

TRENCH MOS SCHOTTKY BARRIER RECTIFIER



TO-252

■ DESCRIPTION

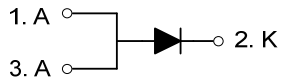
The UTC **TGBR10U80** is a trench mos schottky barrier rectifier, it uses UTC's advanced technology to provide customers with low forward voltage drop and high current capability, etc.

The UTC **TGBR10U80** 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

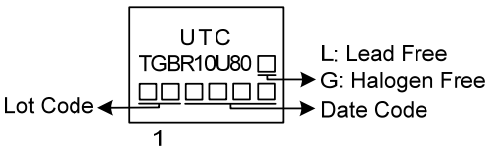
Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
TGBR10U80L-TN3-R	TGBR10U80G-TN3-R	TO-252	A	K	A	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

TGBR10U80G-TN3-R

(1)Packing Type	(1) R: Tape Reel
(2)Package Type	(2) TN3: TO-252
(3)Green Package	(3) G: Halogen Free and Lead Free, L: Lead Free

■ 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_{RRM}	80	V
Average Rectified Output Current	I_O	10	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	150	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	90		V
Forward Voltage Drop	V_{FM}	I_F=5A, T_C=25°C		0.47		V
		I_F=5A, T_C=125°C		0.4		V
		I_F=10A, T_C=25°C		0.57		V
		I_F=10A, T_C=125°C		0.54		V
		I_F=20A, T_C=25°C		0.74	0.82	V
		I_F=20A, T_C=125°C		0.71	0.78	V
Leakage Current	I_{RM}	V_R=80V, T_C=25°C		20	300	μA
		V_R=80V, T_C=125°C		9	45	mA

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

■ TYPICAL CHARACTERISTICS