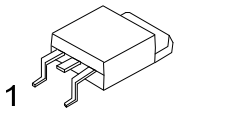
TGBR20S80

DIODE

TRENCH MOS SCHOTTKY BARRIER RECTIFIER



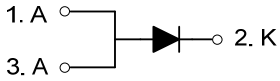
■ DESCRIPTION

The UTC **TGBR20S80** is a 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

* Super low forward voltage drop
* High switching speed

■ SYMBOL



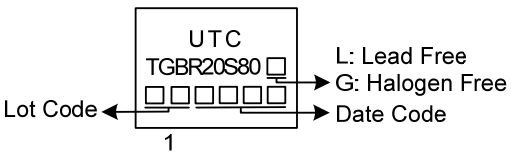
■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
TGBR20S80L-TN3-R	TGBR20S80G-TN3-R	TO-252	A	K	A	Tube

Note: Pin Assignment: A: Anode K: Cathode

TGBR20S80G-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 (PER LEG) (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 Per Device	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	-65 ~ +150	°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 CHARACTERISTICS (PER LEG)

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Case	θ_{JC}	6	°C/W

■ ELECTRICAL CHARACTERISTICS (PER LEG) (T_A=25°C, unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage (Note 1)	$V_{(BR)R}$	I_R=0.50mA	80			V
Forward Voltage Drop	V_{FM}	I_F=5A, T_J=25°C		0.43		V
		I_F=5A, T_J=125°C		0.38		V
		I_F=10A, T_J=25°C		0.49		V
		I_F=10A, T_J=125°C		0.45		V
		I_F=20A, T_J=25°C		0.58	0.65	V
		I_F=20A, T_J=125°C		0.55	0.58	V
Leakage Current (Note 1)	I_{RM}	V_R=80V, T_J=25°C			300	μA
		V_R=80V, T_J=125°C			45	mA

Notes: 1. Short duration pulse test used to minimize self-heating effect.
2. Thermal resistance junction to case mounted on heatsink.

■ TYPICAL CHARACTERISTICS