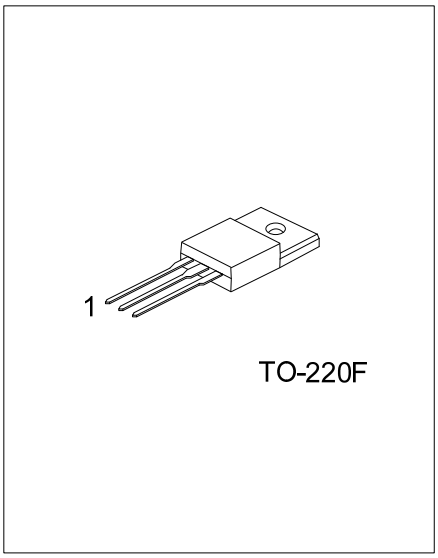
TGBR40S80C

DIODE

DUAL TRENCH MOS SCHOTTKY BARRIER RECTIFIER



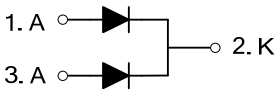
■ DESCRIPTION

The UTC **TGBR40S80C** 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.

■ FEATURES

* Super low forward voltage drop
* High switching speed

■ SYMBOL



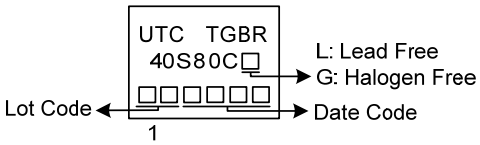
■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
TGBR40S80CL-TF3-T	TGBR40S80CG-TF3-T	TO-220F	A	K	A	Tube

Note: Pin Assignment: A: Anode K: Cathode

TGBR40S80CG-TF3-T (1)Packing Type	(1) T: Tube
(2)Package Type	(2) TF3: TO-220F
(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
Average Rectified Output Current (T_C=140°C)	Per Leg	I_O	20	A
	Total		40	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
Typical Thermal Resistance	θ_{JC}	2	°C/W

■ 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=0.5mA	80			V
Forward Voltage Drop	V_{FM}	I_F=20A, T_J=25°C		0.58	0.65	V
		I_F=20A, T_J=125°C			0.62	V
Leakage Current	I_{RM}	V_R=80V, T_J=25°C			100	μA
		V_R=80V, T_J=125°C			10	mA

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

■ TYPICAL CHARACTERISTICS