



TGBR05S40

Preliminary

DIODE

TRENCH MOS SCHOTTKY BARRIER RECTIFIER

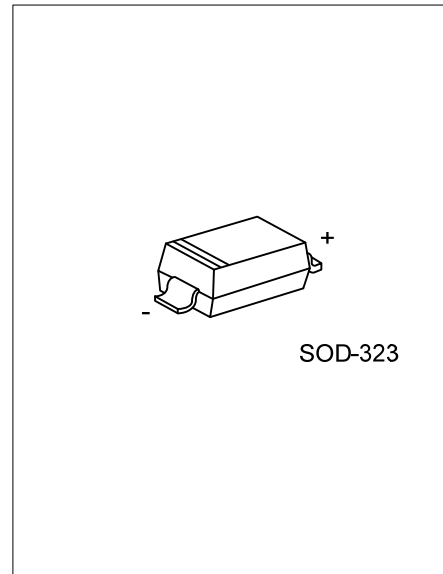
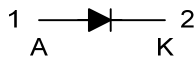
DESCRIPTION

The UTC **TGBR05S40** 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



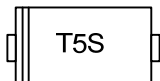
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment		Packing
Lead Free	Halogen Free		1	2	
TGBR05S40L-CB2-R	TGBR05S40G-CB2-R	SOD-323	A	K	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

<p>TGBR05S40G-CB2-R</p> <ul style="list-style-type: none"> (1) Packing Type (2) Package Type (3) Green Package 	<ul style="list-style-type: none"> (1) R: Tape Reel (2) CB2: SOD-323 (3) G: Halogen Free and Lead Free, L: Lead Free
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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}	40	V
Working Peak Reverse Voltage	V_{RWM}	40	V
Peak Repetitive Reverse Voltage	V_{RRM}	40	V
Average Rectified Output Current Per Device	I_o	0.5	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	4	A
Power Dissipation	P_D	250	mW
Operating Junction Temperature	T_J	-65 ~ +150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-65 ~ +150	$^{\circ}\text{C}$

Note: 1. 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.

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

■ THERMAL CHARACTERISTICS (PER LEG)

PARAMETER	SYMBOL	RATINGS	UNIT
Typical Thermal Resistance	θ_{JA}	500	$^{\circ}\text{C}/\text{W}$

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

■ ELECTRICAL CHARACTERISTICS (PER LEG) ($T_A=25^{\circ}\text{C}$, unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R=0.5\text{mA}$	40			V
Forward Voltage Drop	V_{FM}	$I_F=0.5\text{A}, T_J=25^{\circ}\text{C}$		0.39	0.49	V
		$I_F=0.5\text{A}, T_J=100^{\circ}\text{C}$		0.34		V
Leakage Current	I_{RM}	$V_R=40\text{V}, T_J=25^{\circ}\text{C}$			100	μA
		$V_R=40\text{V}, T_J=100^{\circ}\text{C}$			50	mA

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

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