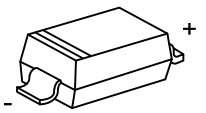
TGBR05S40

Preliminary ***DIODE***

TRENCH MOS SCHOTTKY BARRIER RECTIFIER



SOD-323

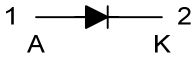
■ DESCRIPTION

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

TGBR05S40G-CB2-R

(1)Packing Type	(1) R: Tape Reel
(2)Package Type	(2) CB2: SOD-323
(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}	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	°C
Storage Temperature	T_{STG}	-65 ~ +150	°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	°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=0.5mA	40			V
Forward Voltage Drop	V_{FM}	I_F=0.5A, T_J=25°C		0.39	0.49	V
		I_F=0.5A, T_J=100°C		0.34		V
Leakage Current	I_{RM}	V_R=40V, T_J=25°C			100	μA
		V_R=40V, T_J=100°C			50	mA

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