



## TGBR5V100

DIODE

### TRENCH MOS SCHOTTKY BARRIER RECTIFIER

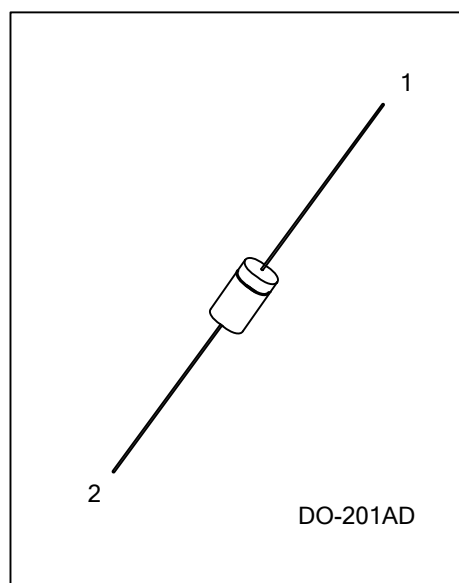
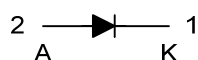
#### DESCRIPTION

The UTC **TGBR5V100** 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

- \* Very low forward voltage drop
- \* High switching speed

#### SYMBOL



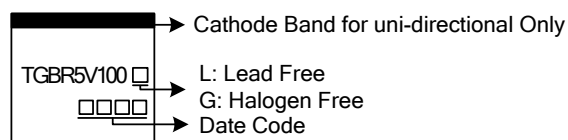
#### ORDERING INFORMATION

Ordering Number		Package	Pin Assignment		Packing
Lead Free	Halogen Free		1	2	
TGBR5V100L-Z21D-B	TGBR5V100G-Z21D-B	DO-201AD	K	A	Tape Box
TGBR5V100L-Z21D-R	TGBR5V100G-Z21D-R	DO-201AD	K	A	Tape Reel
TGBR5V100L-Z21D-K	TGBR5V100G-Z21D-K	DO-201AD	K	A	Bulk

Note: Pin Assignment: A: Anode K: Cathode

<p>TGBR5V100G-Z21D-B</p> <p>(1) Packing Type (2) Package Type (3) Green Package</p>	<p>(1) B: Tape Box, R: Tape Reel, K: Bulk (2) Z21D: DO-201AD (3) G: Halogen Free and Lead Free, L: Lead Free</p>
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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	$V_{RM}$	100	V
Working Peak Reverse Voltage	$V_{RWM}$	100	V
Repetitive Peak Reverse Voltage	$V_{RRM}$	100	V
Average Rectified Output Current	$I_O$	5	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	$I_{FSM}$	150	A
Operating Junction Temperature	$T_J$	-65 ~ +150	$^{\circ}\text{C}$
Storage Temperature	$T_{STG}$	-65 ~ +150	$^{\circ}\text{C}$

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)

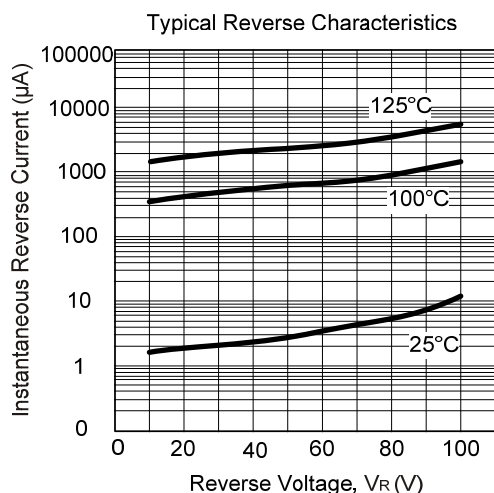
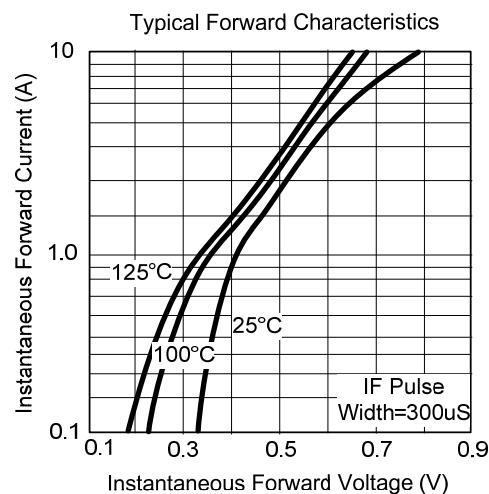
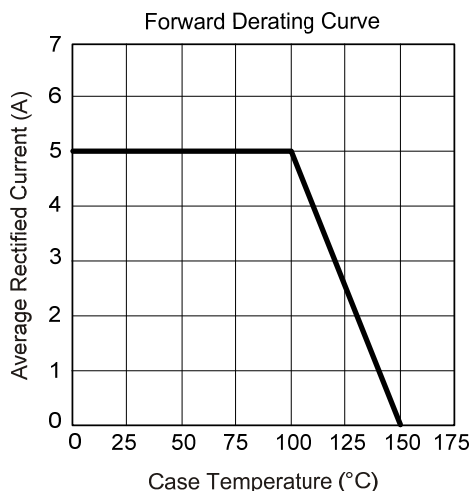
PARAMETER	SYMBOL	RATINGS	UNIT
Typical Thermal Resistance	$\theta_{JC}$	22	$^{\circ}\text{C/W}$

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R=0.5\text{mA}$	100			V
Forward Voltage Drop	$V_{FM}$	$I_F=1\text{A}, T_J=25^{\circ}\text{C}$		0.40		V
		$I_F=1\text{A}, T_J=125^{\circ}\text{C}$		0.30		V
		$I_F=3\text{A}, T_J=25^{\circ}\text{C}$		0.50		V
		$I_F=3\text{A}, T_J=125^{\circ}\text{C}$		0.46		V
		$I_F=5\text{A}, T_J=25^{\circ}\text{C}$		0.60	0.64	V
		$I_F=5\text{A}, T_J=125^{\circ}\text{C}$		0.55	0.59	V
Leakage Current	$I_{RM}$	$V_R=100\text{V}, T_J=25^{\circ}\text{C}$		15	300	$\mu\text{A}$
		$V_R=100\text{V}, T_J=125^{\circ}\text{C}$		5	30	mA

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

## ■ TYPICAL CHARACTERISTICS



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