



TGBR5V100

DIODE

TRENCH MOS SCHOTTKY BARRIER RECTIFIER

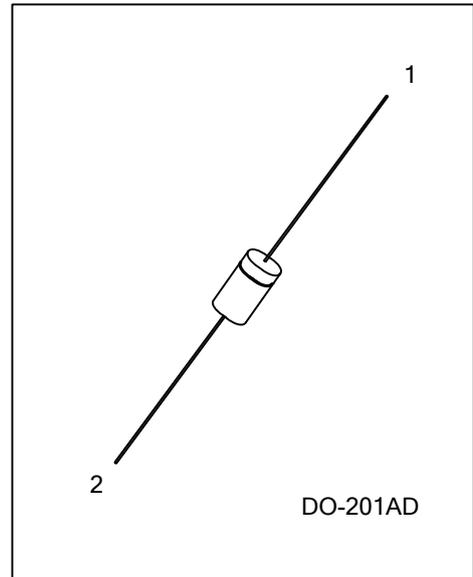
DESCRIPTION

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



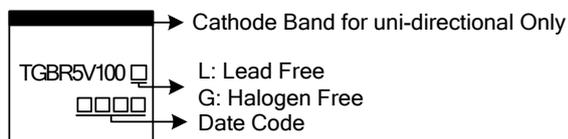
ORDERING INFORMATION

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) 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)

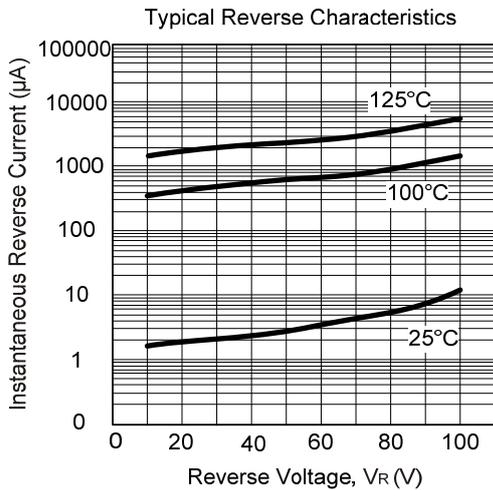
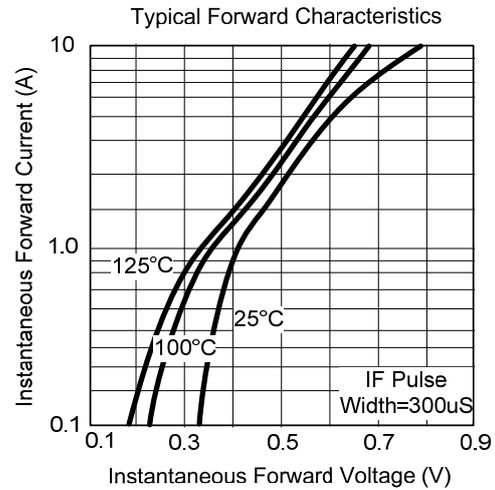
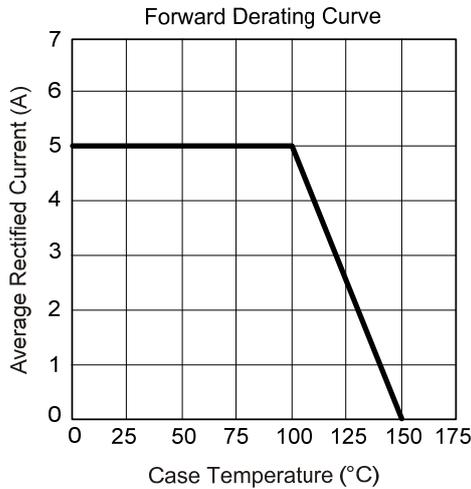
PARAMETER	SYMBOL	RATINGS	UNIT
Typical Thermal Resistance	θ_{JC}	22	$^{\circ}\text{C/W}$

■ 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	μA
		$V_R=100\text{V}, T_J=125^{\circ}\text{C}$		5	30	mA

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

■ TYPICAL CHARACTERISTICS



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