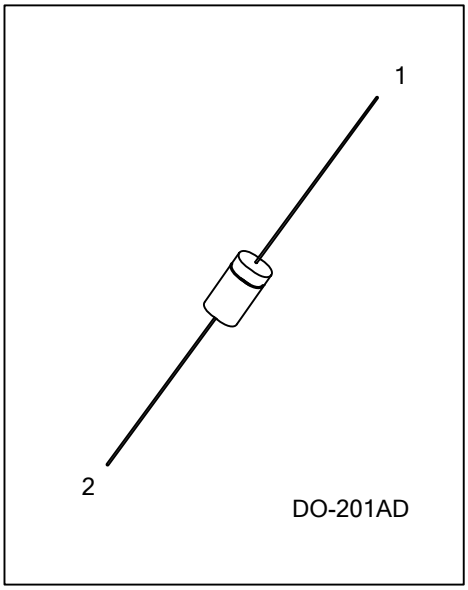
TGBR5V100

DIODE

TRENCH MOS SCHOTTKY BARRIER RECTIFIER



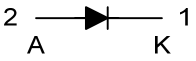
■ DESCRIPTION

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

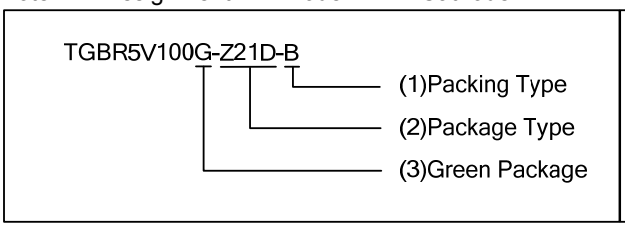
■ SYMBOL



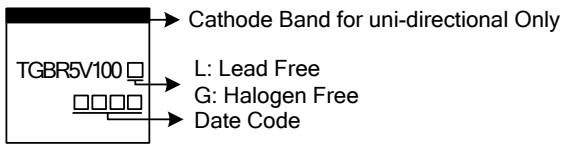
■ ORDERING INFORMATION

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



■ 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}	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	°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}	22	°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	100			V
Forward Voltage Drop	V_{FM}	I_F=1A, T_J=25°C		0.40		V
		I_F=1A, T_J=125°C		0.30		V
		I_F=3A, T_J=25°C		0.50		V
		I_F=3A, T_J=125°C		0.46		V
		I_F=5A, T_J=25°C		0.60	0.64	V
		I_F=5A, T_J=125°C		0.55	0.59	V
Leakage Current	I_{RM}	V_R=100V, T_J=25°C		15	300	μA
		V_R=100V, T_J=125°C		5	30	mA

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

■ TYPICAL CHARACTERISTICS