



TGBR20U60

DIODE

TRENCH MOS SCHOTTKY BARRIER RECTIFIER

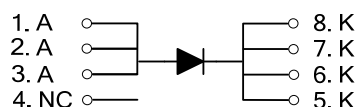
DESCRIPTION

The UTC **TGBR20U60** 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. for high frequency miniature switched mode power supplies such as adapters, lighting and on-board DC/DC converters.

FEATURES

- * Ultra low forward voltage drop
- * High switching speed
- * Excellent high temperature stability
- * Lower power loss/ high efficiency
- * High forward surge capability

SYMBOL



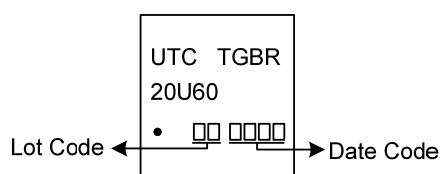
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment								Packing
Lead Free	Halogen Free		1	2	3	4	5	6	7	8	
TGBR20U60L-P5060-R	TGBR20U60G-P5060-R	PDFN5×6	A	A	A	NC	K	K	K	K	Tape Reel

Note: Pin Assignment: G: Gate D: Drain S: Source

<p>TGBR20U60G-P5060-R</p> <p>(1) Packing Type (2) Package Type (3) Green Package</p>		<p>(1) R: Tape Reel (2) P5060: PDFN5×6 (3) G: Halogen Free and Lead Free, L: Lead Free</p>
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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}	60	V
Working Peak Reverse Voltage	V _{RWM}	60	V
Repetitive Peak Reverse Voltage	V _{RRM}	60	V
Average Rectified Output Current	I _O	20	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	120	A
Operating Junction Temperature	T _J	-55 ~ +150	°C
Storage Temperature	T _{STG}	-55 ~ +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)

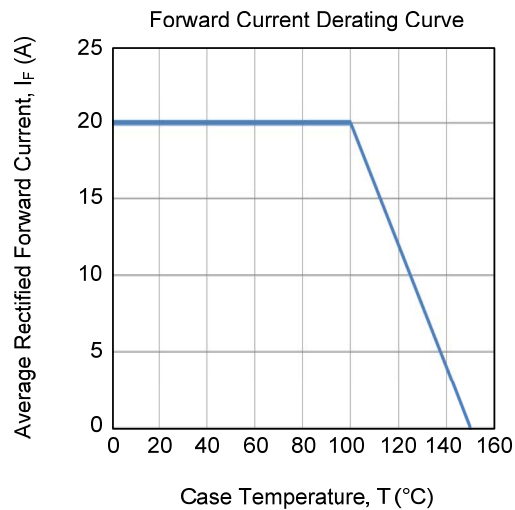
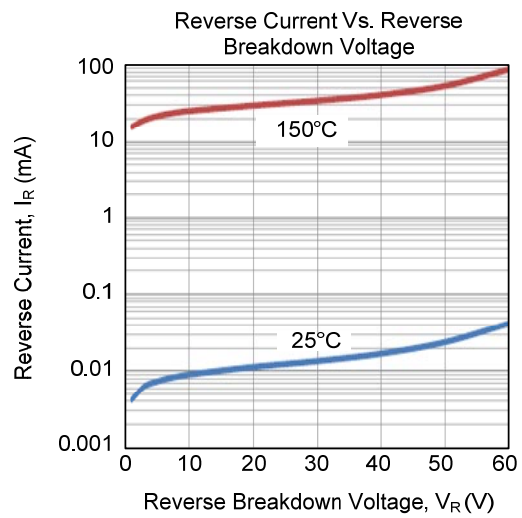
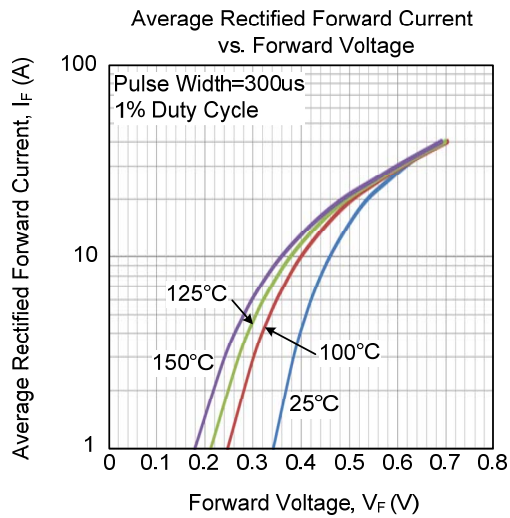
PARAMETER	SYMBOL	RATINGS	UNIT
Typical Thermal Resistance	θ _{JC}	13	°C/W

■ 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	60			V
Forward Voltage Drop	V _{FM}	I _F =10A, T _J =25°C		0.47		V
		I _F =10A, T _J =125°C		0.33		V
		I _F =20A, T _J =25°C		0.54	0.58	V
		I _F =20A, T _J =125°C		0.42	0.52	V
Leakage Current	I _{RM}	V _R =60V, T _J =25°C			500	μA
		V _R =60V, T _J =125°C			100	mA

Note: Pulse Test: Pulse width ≤ 300μs, Duty cycle ≤ 1%.

TYPICAL CHARACTERISTICS



UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. UTC reserves the right to make changes to information published in this document, including without limitation specifications and product descriptions, at any time and without notice. This document supersedes and replaces all information supplied prior to the publication hereof.