



UMUR2020

Preliminary

DIODE

SWITCHMODE ULTRAFAST POWER RECTIFIER

DESCRIPTION

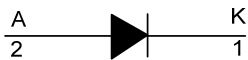
The UTC **UMUR2020** is a switchmode ultrafast power rectifier, it uses UTC's advanced technology to provide customers with low forward voltage drop and high surge capacity, etc.

The UTC **UMUR2020** is suitable for instrumentation and power management, etc

FEATURES

- * Low forward voltage drop
- * High efficiency
- * Low power loss
- * High surge capacity

SYMBOL

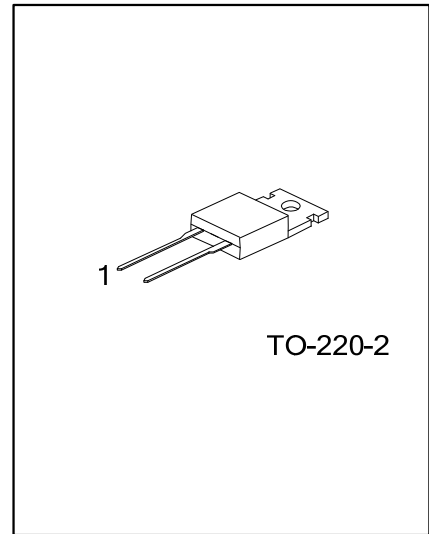


ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
UMUR2020L-TA2-T	UMUR2020G-TA2-T	TO-220-2	K	A	NC	Tube

Note: Pin Assignment: A: Anode, K: Cathode

<p>UMUR2020L-TA2-T</p> <p>(1)Packing Type (2)Package Type (3)Halogen Free</p>	<p>(1) T: Tube (2) TA2: TO-220-2 (3) L: Lead Free, G: Halogen Free</p>
---	--



■ ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	RATINGS	UNIT
DC Blocking Voltage	V_R	200	V
Working Peak Reverse Voltage	V_{RWM}	200	V
Peak Repetitive Reverse Voltage	V_{RRM}	200	V
Average Rectified Forward Voltage (Rated V_R), $T_C=125^\circ\text{C}$	$I_{F(AV)}$	20	A
Peak Repetitive Forward Current (Rated V_R), $T_C=125^\circ\text{C}$	I_{FRM}	40	A
Non-Repetitive Peak Surge Current (Surge Applied at Rated Load Conditions Halfwave, Single Phase, 60Hz)	I_{FSM}	250	A
Operating Junction Temperature	T_J	-65~+175	$^\circ\text{C}$
Storage Temperature	T_{STG}	-65~+175	$^\circ\text{C}$

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

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Case	θ_{JC}	2.0	$^\circ\text{C/W}$
Junction to Ambient	θ_{JA}	70	$^\circ\text{C/W}$

■ ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Instantaneous Forward Voltage (Note 1)	V_F	$I_F=20\text{A}$, $T_J=25^\circ\text{C}$		0.97	1.1	V
		$I_F=20\text{A}$, $T_J=150^\circ\text{C}$		0.79	1.0	V
Instantaneous Reverse Current (Note 1)	I_R	Rated DC Voltage, $T_J=25^\circ\text{C}$		0.1	50	μA
		Rated DC Voltage, $T_J=150^\circ\text{C}$		0.225	1.0	mA
Reverse Recovery Time	t_{RR}	$I_F=1.0\text{A}$, $di/dt=50\text{A}/\mu\text{s}$			95	ns
		$I_F=1.0\text{A}$, $di/dt=100\text{A}/\mu\text{s}$			75	ns

Note: Pulse Test: Pulse Width=5.0ms, Duty Cycle \leq 10%

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. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice.