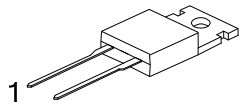
UMUR2020 **Preliminary** ***DIODE***

SWITCHMODE ULTRAFAST POWER RECTIFIER



TO-220-2

■ DESCRIPTION

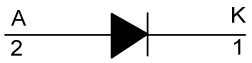
The UTC **UMUR2020** is a switchmode ultrafast power rectifier, it uses UTC's advanced technology to provide customers with low forward voltage drop and high surge capacity, etc.

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

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

■ 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°C	$I_{F(AV)}$	20	A
Peak Repetitive Forward Current (Rated V_R), T_C=125°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	°C
Storage Temperature	T_{STG}	-65~+175	°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	°C/W
Junction to Ambient	θ_{JA}	70	°C/W

■ ELECTRICAL CHARACTERISTICS

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

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