



UCR2PM

Preliminary

TRIACS

2A TRIAC

DESCRIPTION

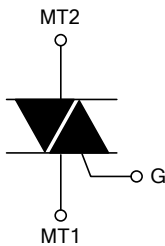
The UTC **UCR2PM** is a 2A standard triac,

The UTC **UCR2PM** is suitable for use in electric pot, electric rice cooker and controller for other heater.

FEATURES

- * $I_{T(RMS)}$: 2A
- * V_{DRM} : 800V ($T_J=125^{\circ}C$)
- * $I_{GT\ I-II-III}$: 10mA

SYMBOL



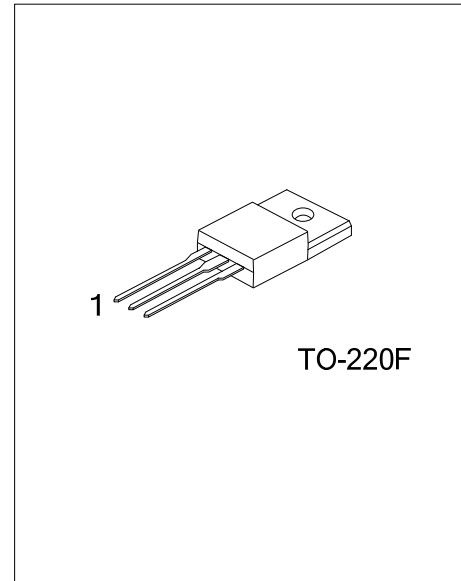
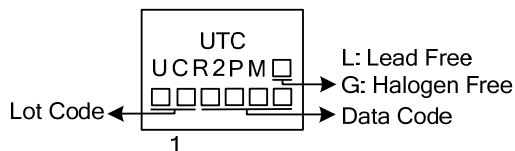
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
UCR2PML-x-TF3-T	UCR2PMG-x-TF3-T	TO-220F	MT1	MT2	G	Tube

Note: Pin Assignment: MT1: MT1 MT2: MT2 G: Gate

UCR2PML-x-TA3-T	(1)Packing Type (2)Package Type (3)Lead Free (4)Lead Free	(1) T: Tube (2) TA3: TO-220 (3) 8: 800V (4) L: Lead Free, G: Halogen Free
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MARKING



■ ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	RATINGS	UNIT	
Repetitive Peak Off-State Voltage (Note 1)	V_{DRM}	$T_J=125^{\circ}C$	800	V
		$T_J=150^{\circ}C$	700	V
Non-Repetitive Peak Off-State Voltage (Note 1)	V_{DSM}	840	V	
On-State RMS Current (Commercial Frequency, Sine Full Wave 360° Conduction)	$I_{T(RMS)}$	2	A	
Surge On-State Current (60Hz Sinewave 1 Full Cycle, Peak Value, Non-Repetitive)	I_{TSM}	10	A	
I^2t for Fusing (Value Corresponding to 1 Cycle of Half Wave 60Hz, Surge On-State Current)	I^2t	0.41	A^2s	
Peak Gate Current	I_{GM}	1	A	
Peak Gate Power Dissipation	P_{GM}	1	W	
Average Gate Power Dissipation	$P_{G(AV)}$	0.1	W	
Peak Gate Voltage	V_{GM}	6	V	
Storage Junction Temperature	T_{STG}	-40~+150	$^{\circ}C$	
Operating Junction Temperature	T_J	-40~+150	$^{\circ}C$	

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 RESISTANCES

PARAMETER	SYMBOL	MAX	UNIT
Junction to Ambient	θ_{JA}	45	$^{\circ}C/W$

■ ELECTRICAL CHARACTERISTICS ($T_J=25^{\circ}C$, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Gate Trigger Current (Note 2)	I_{GT}	$T_J=25^{\circ}C, V_D=6V, R_L=6\Omega, R_G=330\Omega$	I		10	mA
			II		10	mA
			III		10	mA
Gate Trigger Voltage (Note 2)	V_{GT}	$T_J=25^{\circ}C, V_D=6V, R_L=6\Omega, R_G=330\Omega$	I		2.0	V
			II		2.0	V
			III		2.0	V
Gate Non-Trigger Voltage	V_{GD}	$T_J=150^{\circ}C, V_D=1/2 V_{DRM}$	0.1			V
Holding Current (Note 2)	I_H	$I_T=300mA$		2.98		mA
Latching Current	I_L	$I_G=1.2I_{GT}$	I-II		5	mA
			II		10	mA
Critical Rate of Rise of Off-State commutation Voltage (Note 3)	$(dv/dt)_c$	$T_J=125^{\circ}C$	0.5			$V/\mu s$

■ STATIC CHARACTERISTICS

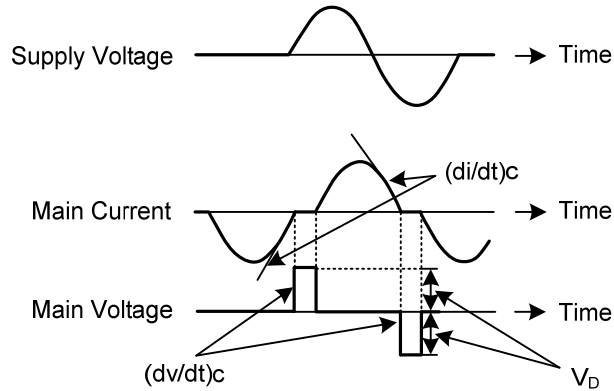
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
On-State Voltage	V_{TM}	$T_J=25^{\circ}C, I_{TM}=3A$, Instantaneous Measurement			2.1	V
Repetitive Peak Off-State Current	I_{DRM}	$T_J=150^{\circ}C, V_{DRM}$ Applied			1.0	mA

Notes: 1. Gate open.

2. Measurement using the gate trigger characteristics measurement circuit.

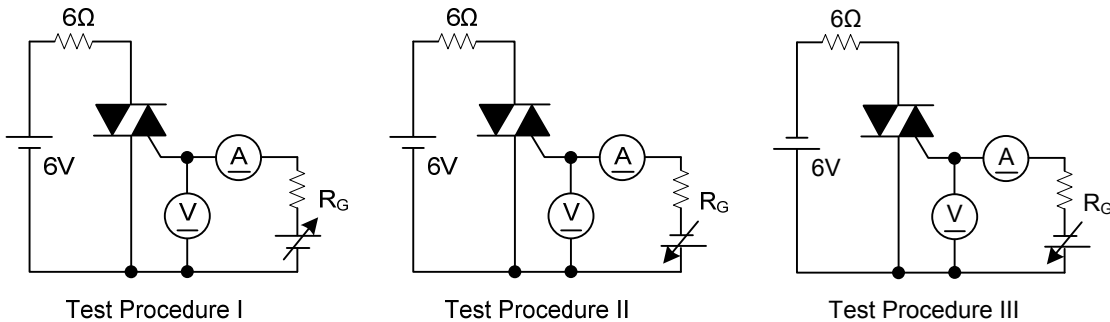
3. Test conditions of the critical-rate of rise of off-state commutation voltage is shown in the table below.

■ COMMUTATING VOLTAGE AND CURRENT WAVEFORMS (INDUCTIVE LOAD)



Note: Test Conditions: 1. Junction temperature: $T_J=125^\circ\text{C}$
 2. Rate of decay of on-state commutating current: $(di/dt)_c=-1.0\text{A/ms}$
 3. Peak off-state voltage: $V_D=400\text{V}$

■ TEST CIRCUITS



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