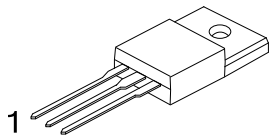
2A TRIAC



TO-220F

■ DESCRIPTION

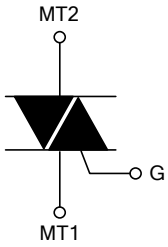
The UTC **UCR2PM** is a 2A standard triac,

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°C)
* $I_{GT\ I\text{-}II\text{-}III}$: 10mA

■ SYMBOL



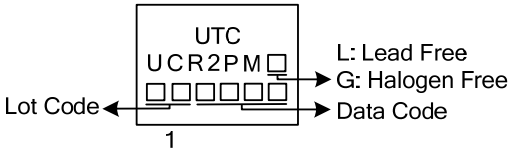
■ ORDERING INFORMATION

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

■ MARKING



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■ ABSOLUTE MAXIMUM RATINGS

PARAMETER		SYMBOL	RATINGS	UNIT
Repetitive Peak Off-State Voltage (Note 1)	T_J=125°C	V_{DRM}	800	V
	T_J=150°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	°C
Operating Junction Temperature		T_J	-40~+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 RESISTANCES

PARAMETER	SYMBOL	MAX	UNIT
Junction to Ambient	θ_{JA}	45	°C/W

■ ELECTRICAL CHARACTERISTICS (T_J=25 °C, unless otherwise specified)

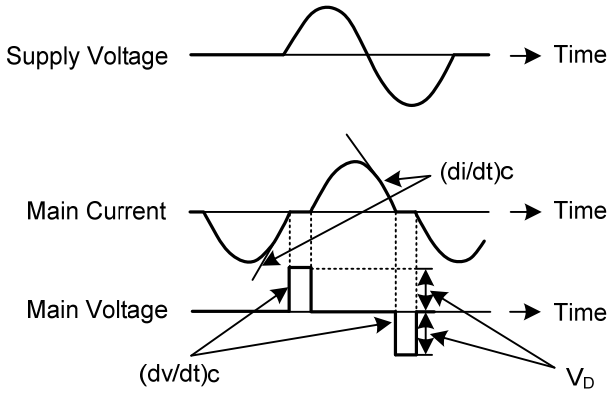
PARAMETER	SYMBOL	TEST CONDITIONS		MIN	TYP	MAX	UNIT
Gate Trigger Current (Note 2)	I_{GT}	T_J=25°C, V_D=6V, R_L=6Ω, R_G=330Ω	I			10	mA
			II			10	mA
			III			10	mA
Gate Trigger Voltage (Note 2)	V_{GT}	T_J=25°C, V_D=6V, R_L=6Ω, R_G=330Ω	I			2.0	V
			II			2.0	V
			III			2.0	V
Gate Non-Trigger Voltage	V_{GD}	T_J=150°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°C		0.5			V/μs

■ STATIC CHARACTERISTICS

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

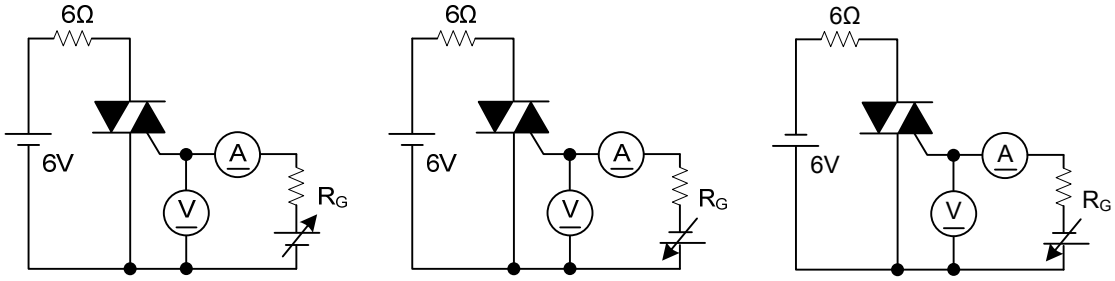
Notes: 1. Gate open.
2. Measurement using the gate trigger characteristics measurement circuit.
3. Test conditions of the critical-rate of rise of off-state commutation voltage is shown in the table below.

■ COMMUTATING VOLTAGE AND CURRENT WAVEFORMS (INDUCTIVE LOAD)



Note: Test Conditions: 1. Junction temperature: T_J=125°C
2. Rate of decay of on-state commutating current: (di/dt)c=-1.0A/ms
3. Peak off-state voltage: V_D=400V

■ TEST CIRCUITS



Test Procedure I Test Procedure II Test Procedure III

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