



**PRODUCT NAME** : 2P4M 2A 400V Thyrist  
or

**PRICE** : Rs 35.00

**SKU** : RM1968



## DESCRIPTION

www.robomart.com Copyrights by Robomart.com

## Features

- Peak Reverse Voltage ( $V_{rsm}$ ): 500V
- Peak Off-State Voltage( $V_{dsm}$ ): 500V
- On-State Current ( $I_t$ ): 2.0A
- Gate Trigger Current ( $I_{gt}$ ): 200 $\mu$ A
- Gate Trigger Voltage ( $V_{gt}$ ): 0.8V

DATA SHEET

NEC

THYRISTORS

2P4M, 2P5M, 2P6M

2 A(4 A<sub>r.m.s.</sub>) PLASTIC MOLDED THYRISTOR

DESCRIPTION

The 2P4M to 2P6M are P-gate all diffused plastic molded type SCR granted average on-state current 2 Amps ( $T_C = 77^\circ\text{C}$ ), with rated voltages up to 600 volts.

FEATURES

- Easy installation by its miniature size and thin electrode leads.
- Less holding current distribution provides free application design.
- Low cost because of mass-production.

QUALITY GRADE

Standard

Please refer to "Quality grade on NEC Semiconductor Devices" (Document number IEI-1209) published by NEC Corporation to know the specification of quality grade on the devices and its recommended applications.

APPLICATIONS

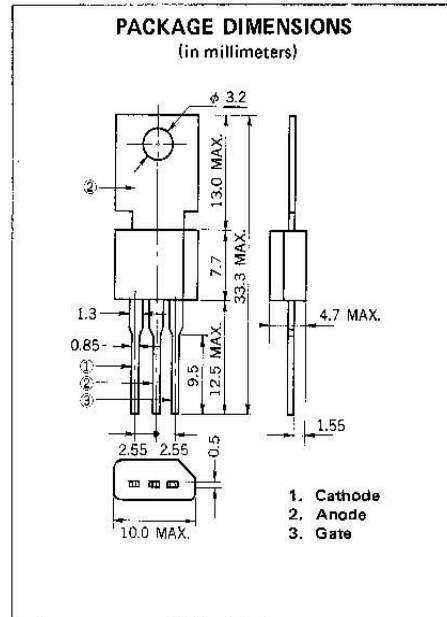
Electric blanket, Electronic jar, Various temperature control.

Electric sewing machine, Speed control of miniature type motor.

Light display equipment, Lamp dimmer such as a display for entertainment.

Automatic gas lighter, Battery charger.

Solid state static switches etc.



**ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub> = 25 °C)**

CHARACTERISTIC	SYMBOL	2P4M	2P5M	2P6M	UNIT	NOTE
Non-Repetitive Peak Reverse Voltage*	V <sub>RSM</sub>	500	600	700	V	R <sub>GK</sub> = 1 kΩ
Non-Repetitive Peak Off-state Voltage*	V <sub>DSM</sub>	500	600	700	V	R <sub>GK</sub> = 1 kΩ
Repetitive Peak Reverse Voltage*	V <sub>RRM</sub>	400	500	600	V	R <sub>GK</sub> = 1 kΩ
Repetitive Peak Off-state Voltage*	V <sub>DRM</sub>	400	500	600	V	R <sub>GK</sub> = 1 kΩ
On-state Current	I <sub>T(AV)</sub>	2 (T <sub>c</sub> = 77 °C, θ = 180 ° Single phase (1/2 wave))			A	See Fig.3, Fig.4
Surge Non-Repetitive On-state Current	I <sub>TSM</sub>	20			A	See Fig. 10
Peak Gate Power Dissipation	P <sub>GM</sub>	0.5 (f ≥ 50 Hz, Duty ≤ 10 %)			W	
Average Gate Power Dissipation	P <sub>G(AV)</sub>	0.1			W	
Peak Gate Forward Current	I <sub>FGM</sub>	0.2 (f ≥ 50 Hz, Duty ≤ 10 %)			A	
Peak Gate Reverse Voltage	V <sub>RGM</sub>	6			V	
Junction Temperature	T <sub>j</sub>	-40 to + 125			°C	
Storage Temperature	T <sub>stg</sub>	-55 to + 150			°C	
Weight		1.4			g	

T<sub>c</sub>: Case Temperature is measured at 1.5 mm from the neck of Tablet.

**ELECTRICAL CHARACTERISTICS (T<sub>a</sub> = 25 °C)**

CHARACTERISTIC	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT	NOTE
Repetitive Peak Reverse Current*	I <sub>RRM</sub>	V <sub>RM</sub> = V <sub>RRM</sub> , T <sub>j</sub> = 125 °C R <sub>GK</sub> = 1 kΩ	—	—	100	μA	
Repetitive Peak Off-state Current*	I <sub>DRM</sub>	V <sub>DM</sub> = V <sub>DRM</sub> , T <sub>j</sub> = 125 °C R <sub>GK</sub> = 1 kΩ	—	—	100	μA	
On-state Voltage	V <sub>TM</sub>	I <sub>TM</sub> = 4 A	—	—	2.2	V	See Fig. 1
Gate-Trigger Current*	I <sub>GT</sub>	V <sub>DM</sub> = 6 V, R <sub>L</sub> = 100 Ω R <sub>GK</sub> = 1 kΩ	—	—	200	μA	See Fig. 5 Fig. 7
Gate-Trigger Voltage*	V <sub>GT</sub>	V <sub>DM</sub> = 6 V, R <sub>L</sub> = 100 Ω R <sub>GK</sub> = 1 kΩ	—	—	0.8	V	See Fig. 6, Fig. 8
Gate Non-Trigger Voltage*	V <sub>GD</sub>	V <sub>DM</sub> = 1/2 V <sub>DRM</sub> , T <sub>j</sub> = 125 °C R <sub>GK</sub> = 1 kΩ	0.2	—	—	V	
Critical Rate-of-Rise of Off-state Voltage	dv/dt	V <sub>DM</sub> = 2/3 V <sub>DRM</sub> , T <sub>j</sub> = 125 °C R <sub>GK</sub> = 1 kΩ	10	10**	—	V/μS	** 2P5M, 2P6M
Holding Current*	I <sub>H</sub>	V <sub>D</sub> = 24 V, R <sub>GK</sub> = 1 kΩ I <sub>TM</sub> = 4 A	—	1	3	mA	See Fig. 9
Thermal Resistance	R <sub>th(j-c)</sub>	Junction to Case	—	—	10	°C/W	See Fig. 11
	R <sub>th(j-a)</sub>	Junction to Ambient	—	—	75		See Fig. 11

\*\* Note: Insert a resistance less than 1 kΩ between gate and cathode, because the items indicated are guaranteed by connecting short resistance between gate and cathode (R<sub>GK</sub> = 1 kΩ).

**EXAMPLE OF R<sub>GK</sub> INSERTION**

