

# CHM Series 5A MINIATURE POWER RELAY

## FEATURES

- Outline dimension (20.4mm×7.0mm×15.0mm)
- 1 Form A (SPST) contact arrangement
- Designed to meet cULus, TUV, CQC requirements
- 4,000VAC dielectric strength between coil and contact
- Sensitive and standard coils available
- RoHS compliance
- REACH SvHC compliance
- Halogen-Free type available Glow
- Glow wire type

## APPLICATION

Air Conditioner, Washing Machine, Microwave Oven, Power Meter, Industrial Control

## COIL PARAMETER

Coil voltage	3-24VDC
Coil power	200mW

## COIL DATA @23°C

CHM				
Nominal coil voltage (VDC)	Nominal Current (mA)	Coil Resistance (Ω) ± 10%	Operate Voltage (VDC Max.)	Release Voltage (VDC Min.)
3	66.7	45	2.25	0.15
5	40.0	125	3.75	0.25
6	33.3	180	4.50	0.30
9	22.5	400	6.75	0.45
12	16.7	720	9.00	0.60
18	11.1	1,620	13.50	0.90
24	8.6	2,880	18.00	1.20



File NO. E341422



File NO. R50174892



File NO. CQC10002043606

## CONTACT DATA

Contact arrangement	1 Form A (SPST)
Contact material	Ag Alloy
Initial contact resistance	100mΩ max.@6VDC,1A
Max. switching voltage	250VAC/30VDC
Max. switching current	5A
Max. switching power	1,250VA/150W
Contact rating (Resistive Load)	5A @ 250VAC 5A @ 30VDC
Mechanical endurance	10,000,000 ops Min.(no load)
Electrical endurance	100,000 ops Min(rated load)
Minimum load (reference value)	100mA@5VDC

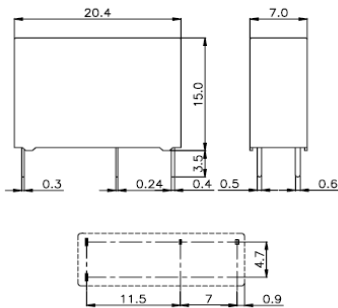
## CHARACTERISTICS

Operate voltage	75% of nominal voltage or less	
Release voltage	5% of nominal voltage or more	
Operate time (At nominal voltage)	10ms max.	
Release time (At nominal voltage)	5ms max.	
Insulation resistance	1,000 MΩ min. (at 500 VDC)	
Dielectric strength	Between coil and contact	4,000 VAC, 50/60 Hz for 1 min
	Between open contacts	1,000 VAC, 50/60 Hz for 1 min
Surge voltage between coil and contacts	7,000V(1.2/50μs)	
Vibration resistance	Destructure	10 to 55 Hz, 1.5mm double amplitude
	Malfuction	10 to 55 Hz, 1.5mm double amplitude
Shock resistance	Destructure	1,000 m/s <sup>2</sup> (100G approximately)
	Malfuction	100 m/s <sup>2</sup> (10G approximately)
Ambient temperature	Operating: -40~+90°C (without icing or condensation)	
Ambient humidity	Operating: 5% to 85% RH	
Terminal	PCB terminals	
Enclosure (94V-0 Flammability Ratings)	V: Vented(Flux-tight, RTII)	
	S: Sealed(Wash-tight, RTIII)	
Weight	Approx. 4g	

## ORDERING INFORMATION

	CHM	-V	-1	12	D	A	3	,000
1.Product Family								
2.Enclosure	V=Vented(Flux-tight, RTII) S=Sealed(Wash-tight, RTI)							
3.Number of Poles	1=1 pole							
4.Rated Coil Voltage	03,05,06,09,12,18,24,48VDC							
5.Coil Power	D = Standard(200mW)							
6.Contact Arrangement	A = Form A(SPST)							
7.Contact Material	3=AgSnO <sub>2</sub> In <sub>2</sub> O <sub>3</sub> 2=AgNi							
8.Additional numbers and /or letters	000-999, AAA-ZZZ, aaa-zzz or blank, which does not represent electrical changes, only for specific customer requirements							

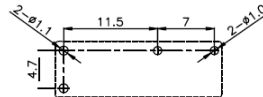
## Typical products



## WIRING DIAGRAMS (BOTTOM VIEWS)



## PC BOARD LAYOUTS (BOTTOM VIEWS)

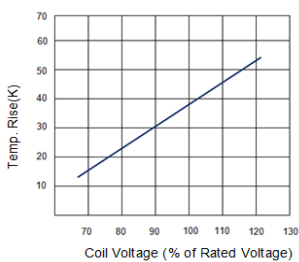


### Remarks:

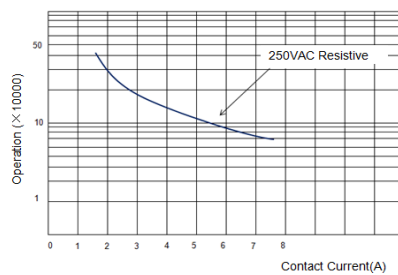
- The reference tolerance in outline dimer  
outline dimension  $\leq 1\text{mm}$ , reference tolerance is  $\pm$   
outline dimension  $> 1\text{mm}$  and  $\leq 5\text{mm}$ , reference tolerance is  $\pm$   
outline dimension  $> 5\text{mm}$ , reference tolerance is  $\pm$
- The reference tolerance for PC Board layout is  $\pm$

## Reference Data

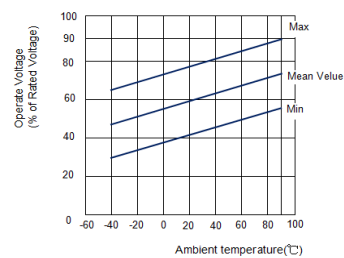
Coil Temperature Rise



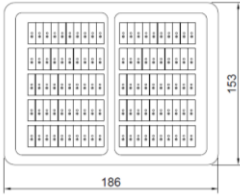
Electrical Life



Coil Operate Voltage & Temperature Cure

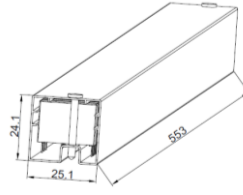


## Packaging Figure



100 pcs inside a box  
1000pcs inside a carton

## 2.TUBE



50 pcs inside a tube  
2000 pcs inside a carton

### Disclaimer:

The specification is for reference only,if you need more detail information,please contact Churod. We could not evaluate all the performance and all parameters for every possible application.And the user should be in a right position to choose the suitable product for their own application.If there is any new need,please contact Churod for the technical service.

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