

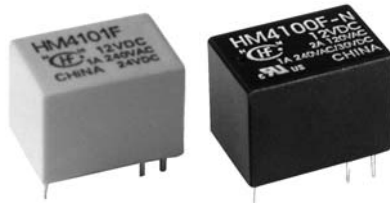
# HM4100F/4101F (HFD5/HFD5A) SUBMINIATURE SIGNAL RELAY

**cus**

File No.:E170653



File No.:40000155



## Features

- Extremely low cost
- 2A switching capability
- 1 Form C configuration
- Standard PCB layout
- Sealed IP67 & flux proof types available
- Environmental friendly product available (RoHS compliant)
- Outline Dimensions: 15.7 x 11.0 x 12.0 mm

## CONTACT DATA

Concat arrangement	1C
Initial contact resistance Max.	100mΩ (at 1A 24VDC)
Contact material	AgNi
Contact rating (Res. load)	H: 1A 120VAC/30VDC N,B: 1A 240VAC/30VDC 2A 120VAC
Max. switching voltage	300VAC / 150VDC
Max. switching current	2A
Max. switching power	240VA / 30W
Mechanical life	1 x 10 <sup>7</sup> ops
Electrical life	1 x 10 <sup>5</sup> ops

## CHARACTERISTICS

Initial insulation resistance		100MΩ (at 500VDC)
Dielectric strength	Between coil & contacts	1000VAC 1min.
	Between open contacts	500VAC 1min.
Operate time (at nomi. volt.)		Max. 10ms
Release time (at nomi. volt.)		Max. 5ms
Temperature rise (at nomi. volt.)		H: 50°C N,B: 60°C
Shock resistance	Functional	98m/s <sup>2</sup> (10g)
	Destructive	980m/s <sup>2</sup> (100g)
Vibration resistance		10 to 55Hz 1.5mm
Humidity		35 to 85% RH
Ambient temperature		-25°C to +70°C
Termination		PCB (DIP)
Unit weight		5g
Construction		Sealed IP67, Flux proof

## COIL

Coil power	B: 450mW; N: 360mW; H: 200mW
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## COIL DATA

Nominal Voltage (VDC)	Pick-up Voltage (VDC)	Drop-out Voltage (VDC)	Max. Allowable Voltage (VDC) 25°C	Coil Resistance (Ω±10%)		
				H	N	B
3	2.3	0.3	3.9	45	25	20
5	3.8	0.5	6.5	120	70	56
6	4.5	0.6	7.8	180	100	80
9	6.8	0.9	11.7	400	220	180
12	9.0	1.2	15.6	700	400	320
24	18.0	2.4	31.2	2800	1600	1280

## SAFETY APPROVAL RATINGS

<b>UL&amp;CUR</b>	2A 125VAC
	1A 240VAC
	1A 30VDC
<b>VDE</b> (HM4101F)	1A 30VDC
	1A 250VAC COSØ=1
	2A 125VAC COSØ=1



HONGFA RELAY

ISO9001、ISO/TS16949、ISO14001、OHSAS18001 CERTIFIED

2006 Rev. 1.01

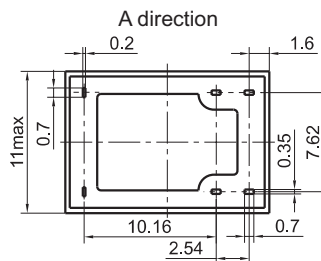
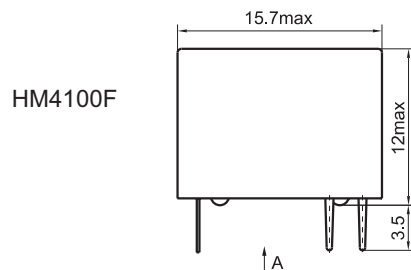
## ORDERING INFORMATION

Type	HM4100F / HM4101F /	012	N	S	XXX
Coil voltage	3, 5, 6, 9, 12, 24 VDC				
Coil power	B: 450mW    N: 360mW    H: 200mW				
Construction	S: Sealed    Nil: Flux proof				
Customer special code	(Only for special requirements, e.g. 551 stands for lead-free, 555 stands for RoHS compliant)				

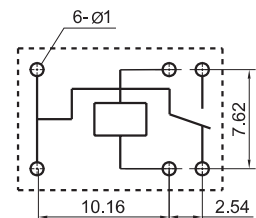
## OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

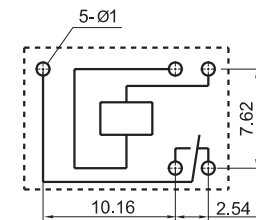
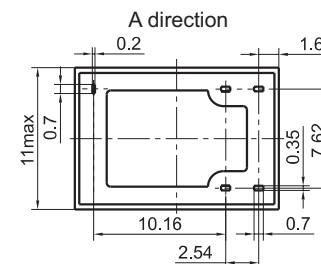
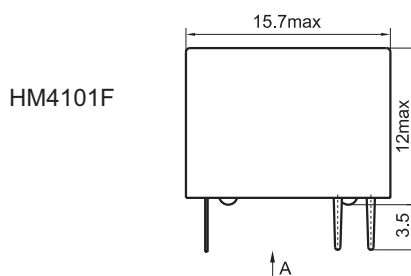
Outline Dimensions



Wiring Diagram  
& PCB Layout



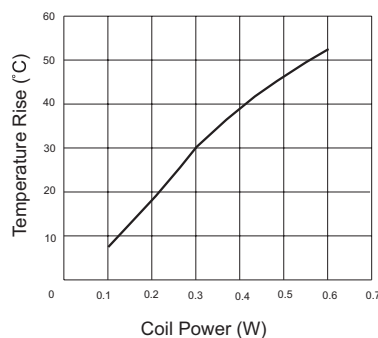
(Bottom view)



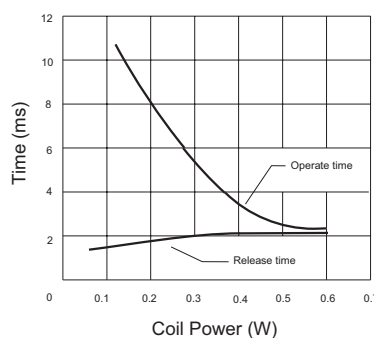
(Bottom view)

## CHARACTERISTIC CURVES

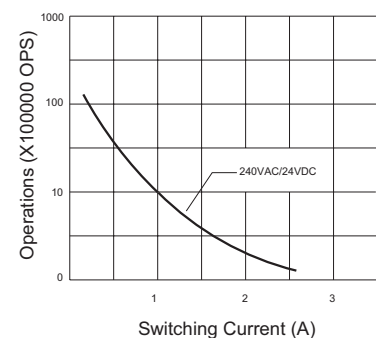
TEMPERATURE RISE



OPERATE TIME



LIFE CURVE



### Disclaimer

This datasheet is for the customers' reference. All the specifications are subject to change without notice.

We could not evaluate all the performance and all the parameters for every possible application. Thus the user should be in a right position to choose the suitable product for their own application. If there is any query, please contact Hongfa for the technical service. However, it is the user's responsibility to determine which product should be used only.

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