

## HF42F(JZC-42F)

## SUBMINIATURE INTERMEDIATE POWER RELAY



File No.:E133481



File No.:40012203



File No.:R2034199



File No.:CQC02001001939



## Features

- 5A switching capability
- TV-3 125VAC approved by UL standard
- 2 Form A slim configuration
- Wash tight and flux proofed types available
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (24.0 x 12.0 x 24.8) mm

## CONTACT DATA

Contact arrangement	2A
Contact resistance	100mΩ (at 1A 6VDC)
Contact material	AgSnO <sub>2</sub> , AgCdO
Contact rating (Res. load)	5A 250VAC/30VDC
Max. switching voltage	250VAC / 30VDC
Max. switching current	5A
Max. switching power	1250VA / 150W
Mechanical endurance	1 x 10 <sup>6</sup> OPS
Electrical endurance	1 x 10 <sup>5</sup> OPS

## COIL

Coil power	530mW
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## COIL DATA

at 23°C

Nominal Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Max. Allowable Voltage VDC	Coil Resistance Ω
5	3.75	0.25	6.5	47 x (1±10%)
6	4.50	0.30	7.8	68 x (1±10%)
9	6.75	0.45	11.7	155 x (1±10%)
12	9.00	0.60	15.6	270 x (1±10%)
18	13.5	0.90	23.4	620 x (1±10%)
24	18.0	1.20	31.2	1080 x (1±10%)
48	36.0	2.40	62.4	4400 x (1±10%)

## CHARACTERISTICS

Insulation resistance	1000MΩ (at 500VDC)
Dielectric strength	Between coil & contacts 4000VAC 1min
	Between open contacts 1000VAC 1min
	Between contact sets 2000VAC 1min
Operate time (at nomi. volt.)	15ms max.
Release time (at nomi. volt.)	10ms max.
Humidity	5% to 85% RH
Ambient temperature	-40°C to 70°C
Shock resistance	Functional 100m/s <sup>2</sup> (10g)
	Destructive 1000m/s <sup>2</sup> (100g)
Vibration resistance	10Hz to 55Hz
Termination	PCB
Unit weight	Approx. 14.5g
Construction	Wash tight, Flux proofed

Notes: 1) The data shown above are initial values.

2) Please find coil temperature curve in the characteristic curves below.

## SAFETY APPROVAL RATINGS

UL&CUR	5A 250VAC
	5A 30VDC
	TV-3 125VAC
TÜV	5A 250VAC COSØ =1
	5A 30VDC L/R=0

Notes: Only some typical ratings are listed above. If more details are required, please contact us.

## ORDERING INFORMATION

	HF42F /	012	-2H	S	T	(XXX)
Type <sup>1)</sup>	HF42F JZC-42F (Old type)					
Coil voltage	5, 6, 9, 12, 18, 24, 48VDC					
Contact arrangement	2H: 2 Form A					
Construction <sup>2)</sup>	S: Wash tight    Nil: Flux proofed					
Contact material	T: AgSnO <sub>2</sub> Nil: AgCdO					
Customer special code <sup>3)</sup> (Only for special requirements)	e.g. (551) stands for RoHS compliant (Cadmium containing contacts) (555) stands for RoHS compliant (Cadmium-free contacts)					

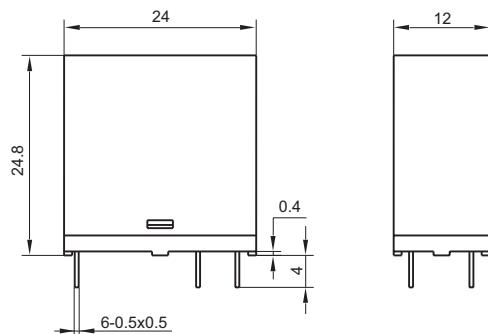
- Notes:**
- 1) We have now gradually updated our ordering information. We suggest new type should be selected. If necessary, old type can be kept for some period for the old customers.
  - 2) Under the ambience with dangerous gas like H<sub>2</sub>S, SO<sub>2</sub> or NO<sub>2</sub>, wash tight type is recommended; please test the relay in real applications. If the ambience allows, flux proofed is preferentially recommended.
  - 3) HF42F is an environmental friendly product. Please mark a special code (555) or (551) when ordering. (551) stands RoHS compliant with Cadmium contact; (555) stands for RoHS compliant with Cadmium-free contact.

## OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

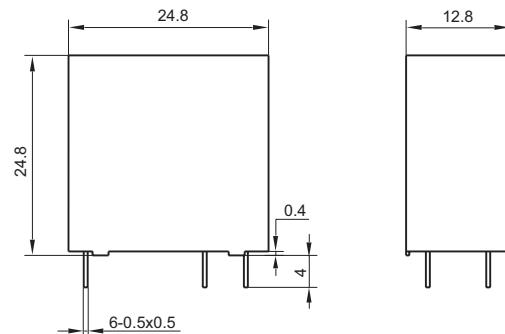
Unit: mm

### Outline Dimensions

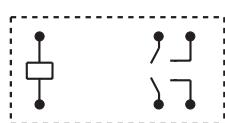
Wash tight type



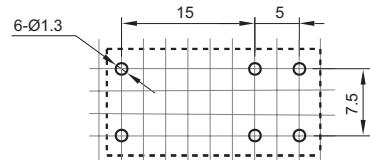
Flux proofed type



Wiring Diagram  
(Bottom view)



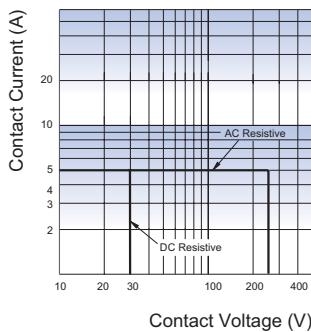
PCB Layout  
(Bottom view)



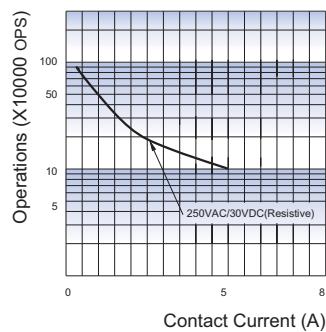
- Remark:**
- 1) In case of no tolerance shown in outline dimension: outline dimension  $\leq 1$ mm, tolerance should be  $\pm 0.2$ mm; outline dimension  $> 1$ mm and  $\leq 5$ mm, tolerance should be  $\pm 0.3$ mm; outline dimension  $> 5$ mm, tolerance should be  $\pm 0.4$ mm.
  - 2) The tolerance without indicating for PCB layout is always  $\pm 0.1$ mm.
  - 3) The width of the gridding is 2.5mm.

## CHARACTERISTIC CURVES

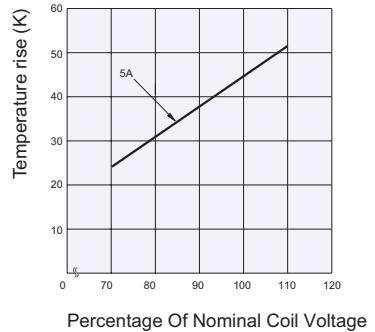
MAXIMUM SWITCHING POWER



ENDURANCE CURVE



COIL TEMPERATURE RISE



### 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.