

# HF7FF (JZC-7FF)

# SUBMINIATURE INTERMEDIATE POWER RELAY



File No.:E134517



File No.:CQC02001001942



### Features

- 10A switching capability
- Low cost, Small package
- 1 Form A and 1 Form C configurations
- Wash tight and flux proofed types available
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (22.5 x 16.5 x 16.5) mm

### CONTACT DATA

Contact arrangement	1A, 1C
Contact resistance	100mΩ (at 1A 6VDC)
Contact material	AgSnO <sub>2</sub> , AgCe
Contact rating (Res. load)	5A 250VAC/30VDC 10A 250VAC/28VDC
Max. switching voltage	250VAC/30VDC
Max. switching current	10A
Max. switching power	2400VA / 280W
Mechanical endurance	1 x 10 <sup>7</sup> OPS
Electrical endurance	1 x 10 <sup>5</sup> OPS

### COIL

Coil power	5 to 24VDC: 360mW; 48VDC: 510mW
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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
3	2.40	0.3	3.6	25 x (1±10%)
5	4.00	0.5	6.0	70 x (1±10%)
6	4.80	0.6	7.2	100 x (1±10%)
9	7.20	0.9	10.8	225 x (1±10%)
12	9.60	1.2	14.4	400 x (1±10%)
18	14.4	1.8	21.6	900 x (1±10%)
24	19.2	2.4	28.8	1600 x (1±10%)
48	38.4	4.8	57.6	4500 x (1±10%)

### CHARACTERISTICS

Insulation resistance	100MΩ (at 500VDC)	
Dielectric strength	Between coil & contacts	1500VAC
	Between open contacts	750VAC
Operate time (at nomi. volt.)	10ms max.	
Release time (at nomi. volt.)	5ms max.	
Shock resistance	Functional	100m/s <sup>2</sup> (10g)
	Destructive	1000m/s <sup>2</sup> (100g)
Vibration resistance	10Hz to 55Hz 1.5mm DA	
Humidity	35% to 95% RH	
Ambient temperature	-40°C to 70°C	
Termination	PCB	
Unit weight	Approx. 13g	
Construction	Wash tight, Flux proofed	

Notes: The data shown above are initial values.

### SAFETY APPROVAL RATINGS

UL&CUR	1 Form C	12A 277VAC/28VDC 5A 30VDC 5A 120VAC NO: 4FLA, 4LRA 120VAC NC: 2FLA, 4LRA 120VAC
	1 Form A	12A 277VAC/28VDC 6A 30VDC 1/3 HP 125VAC 2.9A 125VAC 4FLA, 4LRA 120VAC

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



HONGFA RELAY

ISO9001、ISO/TS16949、ISO14001、OHSAS18001 CERTIFIED

2007 Rev. 2.00

## ORDERING INFORMATION

<b>HF7FF / 012 -1H T S F (XXX)</b>	
<b>Type</b> <sup>1)</sup>	HF7FF JZC-7FF (Old type)
<b>Coil voltage</b>	3, 5, 6, 9, 12, 18, 24, 48VDC
<b>Contact arrangement</b>	<b>1H:</b> 1 Form A <b>1Z:</b> 1 Form C
<b>Contact material</b>	<b>T:</b> AgSnO <sub>2</sub> (10A) <b>Nil:</b> AgCe (5A)
<b>Construction</b> <sup>2)</sup>	<b>S:</b> Wash tight <b>Nil:</b> Flux proofed
<b>Insulation standard</b>	<b>F:</b> Class F <b>Nil:</b> Class B
<b>Customer special code</b> <sup>3)</sup>	Only for special requirements, e.g. (555) stands for RoHS compliant

**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) HF7FF is an environmental friendly product. Please mark a special code (555) when ordering.

## OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

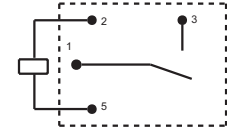
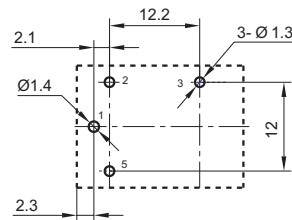
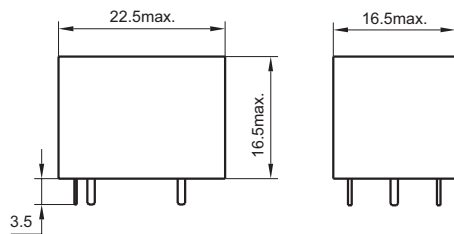
Unit: mm

### Outline Dimensions

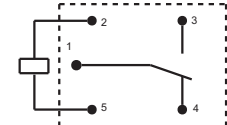
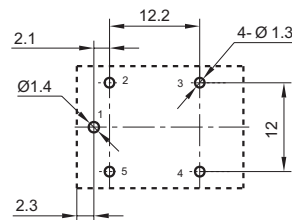
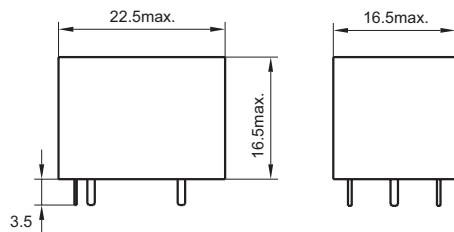
### PCB Layout (Bottom view)

### Wiring Diagram (Bottom view)

#### 1 Form A



#### 1 Form C

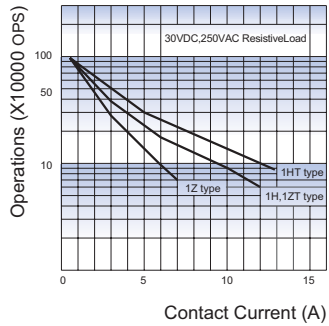


Remark: 1) In case of no tolerance shown in outline dimension: outline dimension  $\leq 1$ mm, tolerance should be  $\pm 0.2$ mm; outline dimension  $> 1$ mm and  $\leq 5$ mm, tolerance should be  $\pm 0.3$ mm; outline dimension  $> 5$ mm, tolerance should be  $\pm 0.4$ mm.

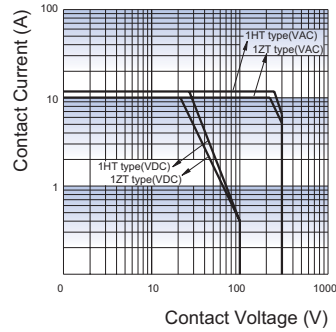
2) The tolerance without indicating for PCB layout is always  $\pm 0.1$ mm.

## CHARACTERISTIC CURVES

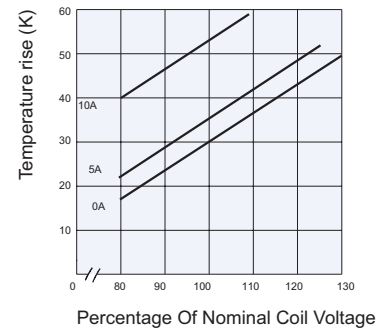
ENDURANCE CURVE



MAXIMUM SWITCHING POWER



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.