

# HF32FA (JZC-32FA) SUBMINIATURE INTERMEDIATE POWER RELAY



File No.:E134517



File No.:40006182



File No.:CQC05001012774



## Features

- 5A switching capability
- Creepage/clearance distance > 8mm
- 5kV dielectric strength (between coil and contacts)
- 1 Form A meets VDE 0700, 0631 reinforce insulation
- 1 Form C meets VDE 0631 reinforce insulation
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (17.6 x 10.1 x 12.3) mm

## CONTACT DATA

Contact arrangement	1A, 1C	
Contact resistance	70mΩ (at 1A 24VDC)	
Contact material	AgNi	
Contact rating (Res. Load)	1A	1C
	Standard/Sensitive	Standard
	5A 250VAC	3A 250VAC
	5A 30VDC	3A 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	

## CHARACTERISTICS

Insulation resistance	1000MΩ (at 500VDC)	
Dielectric strength	Between coil & contacts	5000VAC 1min
	Between open contacts	1000VAC 1min
Operate time (at nomi. volt.)	8ms max.	
Release time (at nomi. volt.)	4ms max.	
Humidity	35% to 95% RH	
Ambient temperature	-40°C to 85°C	
Shock resistance	Functional	100m/s <sup>2</sup> (10g)
	Destructive	1000m/s <sup>2</sup> (100g)
Vibration resistance	10Hz to 55 Hz 1.65mm DA	
Termination	PCB	
Unit weight	Approx.4.6g	
Construction	Wash tight, Flux proofed	

- Notes:** 1) The vibration resistance should be 0.6mm, 10~55Hz for NC contact. Along with the length direction.  
 2) The data shown above are initial values.  
 3) Please find coil temperature curve in the characteristic curves below.

## COIL

Coil power	Sensitive: 200mW; Standard: 450mW
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## COIL DATA

at 23°C

Standard Type (450mW)				
Nominal Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Max. Allowable Voltage VDC	Coil Resistance Ω
3	2.25	0.15	3.9	20 x (1±10%)
5	3.75	0.25	6.5	55 x (1±10%)
6	4.50	0.30	7.8	80 x (1±10%)
9	6.75	0.45	11.7	180 x (1±10%)
12	9.00	0.60	15.6	320 x (1±10%)
18	13.5	0.90	23.4	720 x (1±10%)
24	18.0	1.20	31.2	1280 x (1±10%)
48	36.0	2.40	62.4	5120 x (1±10%)

Sensitive Type (200mW Only for 1 Form A)				
Nominal Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Max. Allowable Voltage VDC	Coil Resistance Ω
3	2.25	0.15	5.1	45 x (1±10%)
5	3.75	0.25	8.5	125 x (1±10%)
6	4.50	0.30	10.2	180 x (1±10%)
9	6.75	0.45	15.3	400 x (1±10%)
12	9.00	0.60	20.4	720 x (1±10%)
18	13.5	0.90	30.6	1600 x (1±10%)
24	18.0	1.20	40.8	2800 x (1±10%)

## SAFETY APPROVAL RATINGS

UL&CUR	1 Form A	5A 250VAC at 85°C 1/8HP 125VAC/250VAC 3A 250VAC COSØ=0.4 C300
	1 Form C	3A 250VAC 3A 30VDC
VDE		5A 250VAC at 85°C 5A 30VDC at 85°C 1 Form A, Sensitive: 3A 400VAC at 85°C

**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>HF32FA / 012 -H S L 1 G (XXX)</b>	
<b>Type</b> <sup>1)</sup>	HF32FA JZC-32FA (Old type)
<b>Coil voltage</b>	3,5, 6, 9, 12, 18, 24, 48VDC
<b>Contact arrangement</b>	<b>H:</b> 1 Form A <b>Z:</b> 1 Form C
<b>Construction</b> <sup>2)</sup>	<b>S:</b> Wash tight <b>Nil:</b> Flux proof
<b>Coil power</b>	<b>L:</b> Sensitive (only for 1 Form A) <b>Nil:</b> Standard
<b>Termination</b>	<b>1:</b> Type 1 <b>2:</b> Type 2
<b>Contact plating</b> <sup>3)</sup>	<b>G:</b> Gold plated <b>Nil:</b> No gold plated
<b>Customer special code</b> <sup>4)</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.

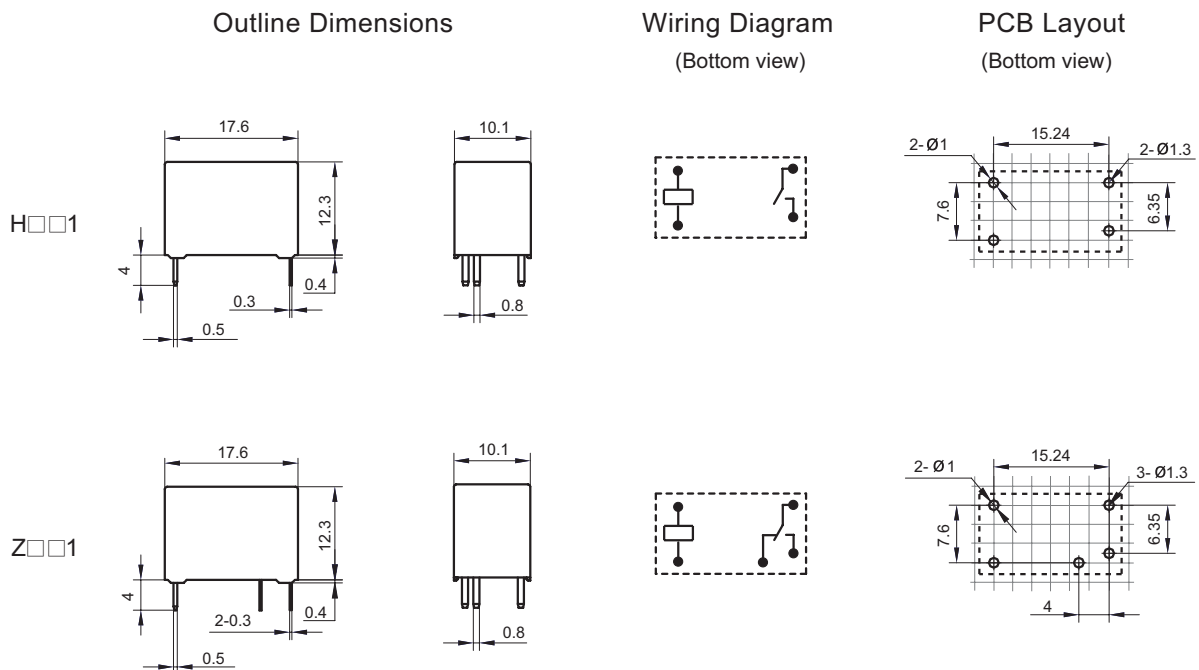
2) Under the ambience with dangerous gas like H<sub>2</sub>S, SO<sub>2</sub> or NO<sub>2</sub>, wash tight type is recommended; please test the relay in real applications. If the ambience allows, flux proofed is preferentially recommended.

3) For gold plated type, the min. switching current and min. switching voltage is 10mA 5VDC.

4) HF32FA is an environmental friendly product. Please mark a special code (555) when ordering.

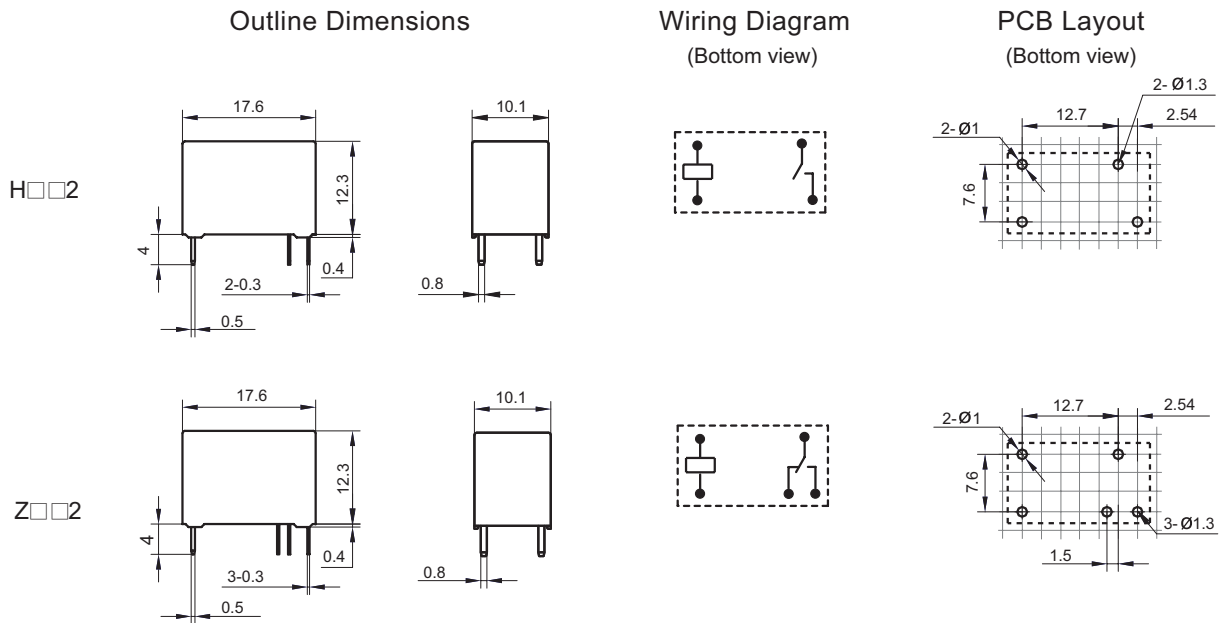
## OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm



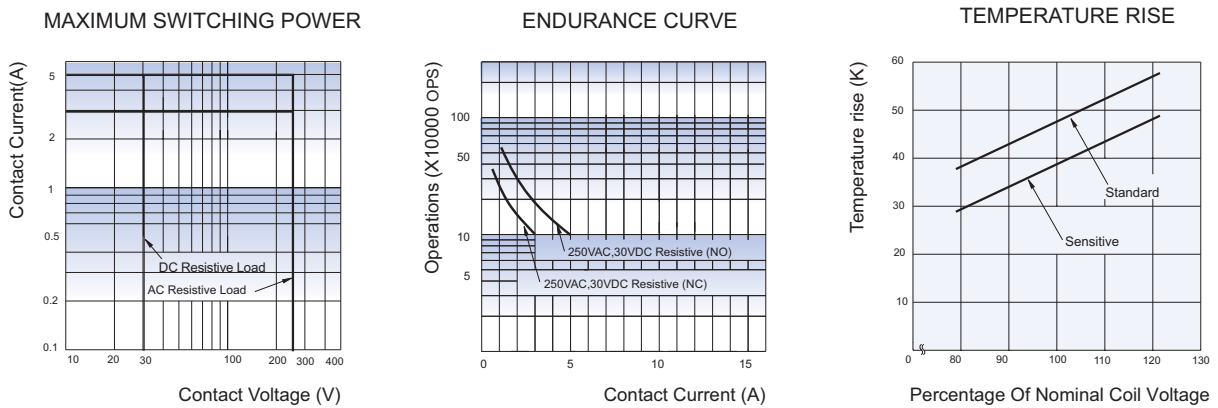
# OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm



Remark: 1) In case of no tolerance shown in outline dimension: outline dimension  $\leq 1\text{mm}$ , tolerance should be  $\pm 0.2\text{mm}$ ; outline dimension  $> 1\text{mm}$  and  $\leq 5\text{mm}$ , tolerance should be  $\pm 0.3\text{mm}$ ; outline dimension  $> 5\text{mm}$ , tolerance should be  $\pm 0.4\text{mm}$ .  
 2) The tolerance without indicating for PCB layout is always  $\pm 0.1\text{mm}$ .  
 3) The width of the gridding is 2.54mm.

## CHARACTERISTIC CURVES



### 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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