# **HFD23**(JRC-23F)

## **SUBMINIATURE SIGNAL RELAY**



File No.:E133481



File No.:CQC02001001948



### Features

- Max.2A switching capability
- High sensitive: 150mW
- 1 Form C configuration
- Wash tight type available
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (12.5 x 7.5 x 10.0) mm

CONTACT DATA	
Contact arrangement	1C
Contact resistance	100m Ω(at 0.1A 6VDC)
Contact material	AgNi +Au plated
Contact rating (Res. load)	0.5A 125VAC / 1A 30VDC
Max. switching voltage	125VAC / 60VDC
Max. switching current	2A
Max. switching power	62.5VA / 30W
Min. permissible load	1mA 5V
Mechanical endurance	1x10 <sup>7</sup> OPS (300OPS/min.)
Electrical endurance	1x10⁵ ops (30ops/min.)

CHARACTERISTICS			
Insulation resistance		1000M Ω(at 500VDC)	
Dielectric	Between coil & contacts	1000VAC 1min	
strength	Between open contacts	400VAC 1min	
Operate tir	me (at nomi. volt.)	5ms max.	
Release time (at nomi. volt.)		5ms max.	
Bounce time (at nomi.volt.)		5ms max.	
Temperature rise (at nomi.volt.)		65K max.	
Shock resistance		100m/s² (10g)	
Vibration resistance		10Hz to 55Hz 3.3mm DA	
Humidity		35% to 85% RH	
Ambient temperature		-30°C to 70°C	
Unit weight		Approx. 2.2g	
Termination		PCB (DIP)	
Construction		Wash tight	

Notes: The data shown above are initial values.

COIL		
Coil power	Sensitive:150mW;	Standard: 200mW

<b>COIL DATA</b>	at 23°C

Standard Type (200mW)			W)		
	Nominal Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Max. Allowable Voltage VDC	Coil Resistance Ω
	1.5	1.20	0.15	2.25	11.3 x (1±10%)
	3	2.40	0.30	4.5	45 x (1±10%)
	5	4.00	0.50	7.5	125 x (1±10%)
	6	4.80	0.60	9.0	180 x (1±10%)
	9	7.20	0.90	13.5	405 x (1±10%)
	12	9.60	1.20	18.0	720 x (1±10%)
	24	19 20	2 40	36.0	2880 x (1±15%)

### Sensitive Type (150mW)

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Nominal Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Max. Allowable Voltage VDC	Coil Resistance Ω
1.5	1.20	0.15	2.25	15 x (1±10%)
3	2.40	0.30	4.5	60 x (1±10%)
5	4.00	0.50	7.5	167 x (1±10%)
6	4.80	0.60	9.0	240 x (1±10%)
9	7.20	0.90	13.5	540 x (1±10%)
12	9.60	1.20	18.0	960 x (1±10%)
24	19.20	2.40	36.0	3840 x (1±15%)

### **SAFETY APPROVAL RATINGS**

	1.0A 30VDC
<b>UL&amp;CUR</b>	0.3A 60VDC
	0.5A 125VAC

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



ISO9001、ISO/TS16949、ISO14001、OHSAS18001 CERTIFIED

2007 Rev. 2.00

### ORDERING INFORMATION

HFD23 /

012

-1Z

S

Type 1)

Coil power

HFD23 JRC-23F (Old type)

Coil voltage 1.5, 3, 5, 6, 9, 12, 24VDC

**Contact arrangement** 1Z: 1 Form C

S: Sensitive type (150mW)

P: Standard type (200mW)

Customer special code<sup>2)</sup>

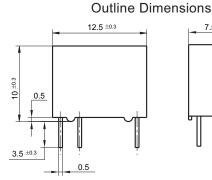
Only for special requirements, e.g. (555) stands for RoHS compliant

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

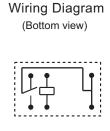
2) HFD23 is an environmental friendly product. Please mark a special code (555) when ordering.

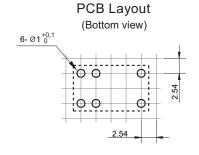
### **OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT**

Unit: mm









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

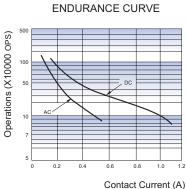
- The tolerance without indicating for PCB layout is always ±0.1mm.
- 3) The width of the gridding is 2.54mm.

### CHARACTERISTIC CURVES

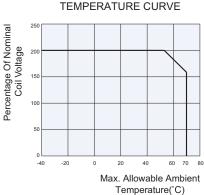
MAXIMUM SWITCHING POWER

# Contact Current (A)









MAX.ALLOWABLE AMBIENT

### 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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