HF46FB SUBMINIATURE INTERMEDIATE POWER RELAY

File No.: E134517

File No.: 40049080

File No.: CQC17002177913



Features

- 10A switching capability
- 8kV impulse withstand voltage (between coil and contacts)
- Extended temp. Range up to 105˚C
- Complies with reinforced insulation per VDE0631 and VDE0700
- Width 7mm, Suitable for PCB intensive installation
- UL insulation system: Class F

RoHS compliant

CONTACT DATA

Contact arrangement	1C
Contact resistance[1)]	100mΩ max. (at 1A 6VDC)
Contact material	AgNi
Contact rating (Res. load)	10A 250VAC
Max. switching voltage	277VAC
Max. switching current	10A
Max. switching power	2770VA
Mechanical endurance	5 x 10^6OPS
Electrical endurance	5 x 10^4OPS (CO:5A 250VAC, Resistive load, at 85˚C, 3s on 3s off) 5x 10^4OPS (NO: 10A 250VAC, Resistive load,105˚C, 1s on 9s off)[2)]

Notes: 1) The data shown above are initial values.
2) Product open air vent test for (875) characterized products only.

CHARACTERISTICS

Insulation resistance		1000MΩ (at 500VDC)
Dielectric strength	Between coil & contacts	4000VAC 1min
	Between open contacts	1000VAC 1min
Surge voltage (between coil & movable contacts)		8kV (1.2 /50μs)
Operate time (at rated. volt.)		10ms max.
Release time (at rated. volt.)		10ms max.
Shock resistance	Functional	98m/s^2
	Destructive	980m/s^2
Vibration resistance		10Hz to 55Hz 1.5mm DA
Humidity		5% to 85% RH
Ambient temperature		-40˚C to 105˚C
Termination		PCB
Unit weight		Approx. 4.5g
Construction		Plastic sealed,Flux proofed

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

COIL

Coil power	Approx. 360mW

COIL DATA at 23˚C

Nominal Voltage VDC	Pick-up Voltage VDC max.[1)]	Drop-out Voltage VDC min.[1)]	Max. Voltage VDC[2)]	Coil Resistance Ω
3	2.25	0.18	3.9	25 x (1±10%)
5	3.75	0.25	6.5	69 x (1±10%)
6	4.50	0.30	7.8	100 x (1±10%)
9	6.75	0.45	11.7	225 x (1±10%)
12	9.00	0.60	15.6	400 x (1±10%)
18	13.5	0.90	23.4	900 x (1±10%)
24	18.0	1.20	31.2	1600 x (1±10%)

Notes: 1) The data shown above are initial values.
2) Maximum voltage refers to the maximum voltage which relay coil could endure in a short period of time.

SAFETY APPROVAL RATINGS

UL/CUL	5A 250VAC 85˚C 10A 250VAC 105˚C
VDE	

Notes: 1)Only typical loads are listed above. Other load specifications can be available upon request.

ORDERING INFORMATION

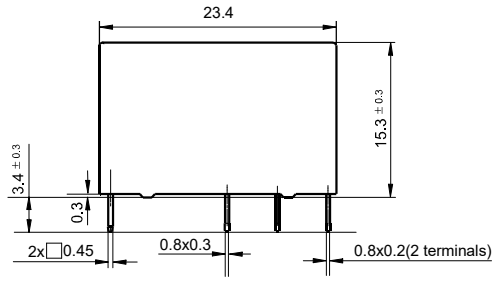
	HF46FB /	12	-Z	S	3	(XXX)
Type						
Coil voltage	3, 5, 6, 9, 12, 18, 24VDC					
Contact arrangement	**Z:** 1 Form C					
Construction	**S:** Plastic sealed	**Nil:** Flux proofed				
Contact material	**3:** AgNi					
Special code	**XXX:** Customer special requirement	**Nil:** Standard				

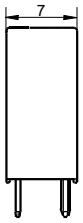
Notes: 1) The customer special requirement express as special code after evaluating by Hongfa.
e.g.(335) stands for product in accordance to IEC 60335-1 (GWT), (875) stands for product inload 10A 250VAC.
2) Contact is recommended for suitable condition and specifications if water cleaning or surface process is involved in assembling relays on PCB.

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

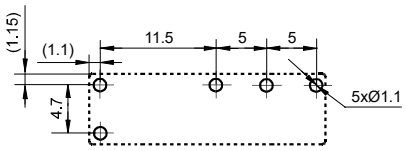
Unit: mm

Outline Dimensions

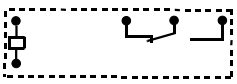




PCB Layout
(Bottom view)



Wiring Diagram
(Bottom view)



Remark:1) The pin dimension of the product outline drawing is the size before tinning (it will become larger after tinning), and the mounting hole size is the recommended design size of the PCB board hole. The specific PCB board hole design size can be mapped and adjusted according to the actual product.
2) In case of no tolerance shown in outline dimension: outline dimension ≤1mm, tolerance should be ±0.2mm; outline dimension >1mm and ≤5mm, tolerance should be ±0.3mm; outline dimension >5mm, tolerance should be ±0.4mm.
3) The tolerance without indicating for PCB layout is always ±0.1mm.

Disclaimer

The specification is for reference only. See to "Terminology and Guidelines" for more information. Specifications 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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