HF46FA SUBMINIATURE INTERMEDIATE POWER RELAY

c UL us
File No.:E134517

File No.:R50582170

File No.:CQC17002177913



Features

- 10A switching capability
- Surge Voltage (Between coil & contacts):10kV
- Satisfies reinforced insulation
- Extended temp. Range up to 105℃
- Width: 7mm,Suitable for PCB intensive installation
- Standard type: TV-5 products are available (AB9):TV-8 products are available
- UL insulation system: Class F

RoHS compliant

CONTACT DATA

Contact arrangtement	1A
Contact resistance	Max.100mΩ(1A 6VDC)
Contact material	$AgSnO_2$, AgNi
Contact rating (resistance)	10A 250VAC
Max.swtiching voltage	277VAC
Max.switching current	10A
Max.switching power	2770VA
Mechanical endurance	5×10^6 ops
Electrical endurance	1×10^5 ops (10A 250VAC,Resistive load,85℃, 1s on 9s off) 5×10^4 ops (10A 250VAC,Resistive load,105℃, 1s on 9s off)

Notes:1) The data shown above are initial values.
2) Sealed type electrical endurance test with open hole.

CHARACTERISTICS

Insulation resistance		1000MΩ(500VDC)
Dielectric strength	Between open contacts	1000VAC 1min
	Between coil & contacts	4000VAC 1min
Surge Voltage		10kV(1.2 x 50μs)
Operate time (at nomi. volt.)		10ms max.
Release time (at nomi. volt.)		10ms max.
Shock resistance	Functional	98m/s²
	Destructive	980m/s²
Vibration resistance		10Hz to 55Hz 1.5mm DA
Humidity		5% to 85%RH
Ambient temperature		-40℃ to 105℃
Termination		PCB
Unit weight		Approx. 4g
Construction		Plastic sealed,flux proofed

Notes: The data shown above are initial values.

COIL

Coil power	Approx. 360mW

COIL DATA 23℃

Nominal Voltage VDC	Pick-up Voltage VDC max.1)	Drop-out Voltage VDC min.1)	Max. Allowable Voltage VDC 2)	Coil Resistance Ω
3	2.25	0.18	3.9	25×(1±10%)
5	3.75	0.25	6.5	69×(1±10%)
6	4.50	0.30	7.8	100×(1±10%)
9	6.75	0.45	11.7	225×(1±10%)
12	9.00	0.60	15.6	400×(1±10%)
18	13.5	0.90	23.4	900×(1±10%)
24	18.0	1.20	31.2	1600×(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	AgNi	10A 250VAC, 85℃ 10A 250VAC, 105℃
	$AgSnO_2$	10A 250VAC, 105℃ 1/3HP, 240VAC, 85℃
UL	$AgSnO_2$	Standard type：TV-5 120VAC, 40℃ (AB9) type:TV-8 120VAC, 40℃
TÜV	AgNi	10A 250VAC, 85℃ 10A 250VAC, 105℃
	$AgSnO_2$	10A 250VAC, 105℃

Notes:1) Only some typical rating are listed above.If more details are required,please contact us.

ORDERING INFORMATION

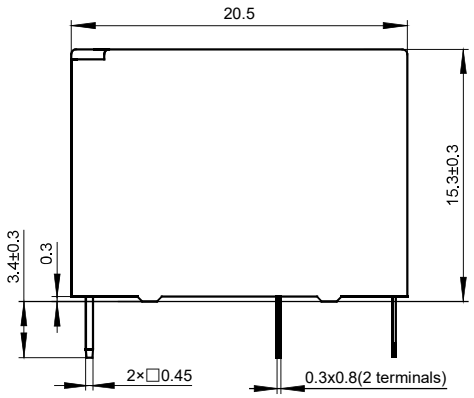
	HF46FA	12	-H	S	3	（XXX）
Type						
Coil voltage	3,5,6,9,12,18,24VDC					
Contact arrangement	**H:**1 Form A					
Construction	**S:** Plastic sealed	**Nil:** Flux proofed				
Contact material	**3:** AgNi	**T:** $AgSnO_2$				
Special code	**XXX:** Customer special requiremen	**Nil:** Standard				

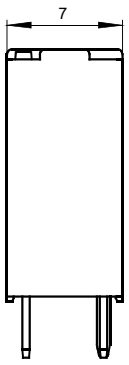
Notes: 1) The customer special requirement express as special code after evaluating by Hongfa.e.g.(335) stands for product in accordance to IEC 60335-1(GWT),(AB9) Indicates that the product meets the TV-8 load.
2) Contact is recommended for suitalbe condition and specifications if water cleaning or surface process is involved in assembling relays on PCB.
3) We suggest to choose plastic sealed types and validate it in real application for an unclean environment (with contaminations like H_2S,SO_2,NO_2, dust,etc.).

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

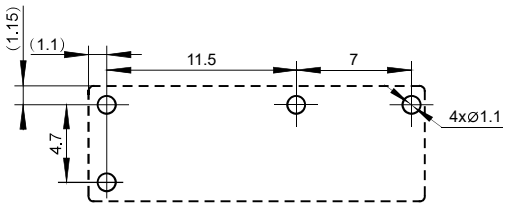
Unit: mm

Outline Dimensions

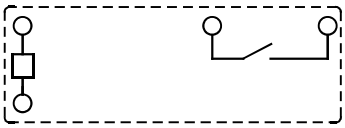




PCB Layout(Bottom view)



Wiring Diagram(Bottom view)



Notes:1) 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.
2) 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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