

HF35F

MINIATURE HIGH POWER RELAY



File No.:E133481



File No.:R 50500339



File No.:CQC24002440575



Features

- 3A switching capability
- Surge withstand voltage up to 8kV
- Satisfies reinforced insulation
- Suitable for PCB intensive installation
- UL insulation system:Class F

RoHS compliant

CONTACT DATA

| | |
|----------------------------------|--|
| Contact arrangement | 1H |
| Contact resistance ¹⁾ | 100mΩ max.(at 1A 6VDC) |
| Contact material | AgNi |
| Contact rating (resistance) | 3A 250VAC |
| Max.swtiching voltage | 277VAC |
| Max. switching current | 3A |
| Max. switching power | 831VA |
| Mechanical endurance | 5×10 ⁵ ops |
| Electrical endurance | 1×10 ⁵ ops (85°C, 3A 250VAC,Resistive load, 1s on 9s off) |

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

CHARACTERISTICS

| | | |
|------------------------------------|-------------------------|--|
| Insulation resistance | | 1000MΩ (500VDC) |
| Dielectric strength | Between open contacts | 1000VAC 1min |
| | Between coil & contacts | 4000VAC 1min |
| Surge Voltage | | 8kV(1.2×50μs) |
| Operate time (at nomi. volt.) | | 10ms max. |
| Release time (at nomi. volt.) | | 10ms max. |
| Shock resistance ¹⁾ | Functional | 98m/s ² |
| | Destructive | 980m/s ² |
| Vibration resistance ¹⁾ | | 10Hz ~ 55Hz 1.5mm DA |
| Humidity | | 5% ~ 85%RH |
| Ambient temperature | | Standard: -40℃ to 85℃ Sensitive: -40℃ to 105℃ |
| Termination | | PCB |
| Unit weight | | Standard: Approx. 2.5g Sensitive: Approx.3g |
| Construction | | Plastic sealed,Flux proofed |

Notes:1) Shock resistance:Length Direction 49m/s²;
Vibration resistance: Length Direction: 10Hz~55Hz,1mm DA
2) The data shown above are initial values.

COIL

| | |
|------------|---|
| Coil power | Standard: Approx. 450mW Sensitive: Approx. 200mW |
|------------|---|

COIL DATA

at 23°C

Standard type

| 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 | 20×(1±10%) |
| 5 | 3.75 | 0.25 | 6.5 | 56×(1±10%) |
| 6 | 4.50 | 0.3 | 7.8 | 80×(1±10%) |
| 9 | 6.75 | 0.45 | 11.7 | 180×(1±10%) |
| 12 | 9.00 | 0.6 | 15.6 | 320×(1±10%) |
| 18 | 13.5 | 0.9 | 23.4 | 720×(1±10%) |
| 24 | 18.00 | 1.2 | 31.2 | 1280×(1±10%) |

Sensitive type

| 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 | 45×(1±10%) |
| 5 | 3.75 | 0.25 | 6.5 | 125×(1±10%) |
| 6 | 4.50 | 0.3 | 7.8 | 180×(1±10%) |
| 9 | 6.75 | 0.45 | 11.7 | 405×(1±10%) |
| 12 | 9.00 | 0.6 | 15.6 | 720×(1±10%) |
| 18 | 13.5 | 0.9 | 23.4 | 1620×(1±10%) |
| 24 | 18.00 | 1.2 | 31.2 | 2880×(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 | 3A 250VAC 85°C C300 |
| TUV | 3A 250VAC 85°C |

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



HONGFA RELAY

ISO9001,IATF16949,ISO14001,OHSAS18001,IECQ QC 080000 CERTIFIED

2024 Rev. 1.01

ORDERING INFORMATION

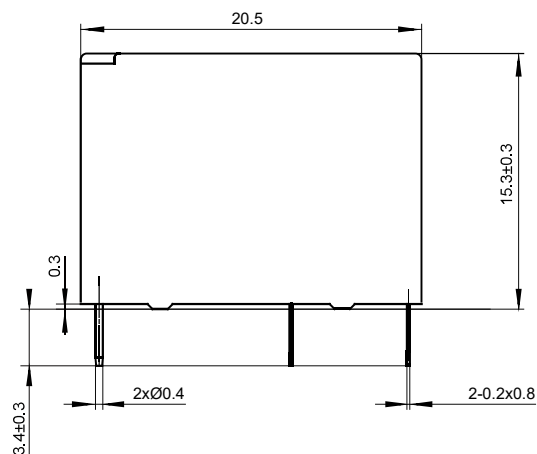
| | | | | | | | | |
|---------------------|---|----|----|---|---|---|---|-------|
| Type | HF35F/ | 12 | -H | S | L | 3 | F | (XXX) |
| Coil voltage | 3,5,6,9,12,18,24VDC | | | | | | | |
| Contact arrangement | H: 1 Form A | | | | | | | |
| Construction | S: Plastic sealed Nil: Flux proofed | | | | | | | |
| Coil Power | Nil: Standard type L: Sensitive type | | | | | | | |
| Contact material | 3: AgNi | | | | | | | |
| Insulation class | F: Class F | | | | | | | |
| 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).:
2) Please use wave soldering or manual soldering for straight-in relay. If you need reflow welding, please confirm the feasibility with us.

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

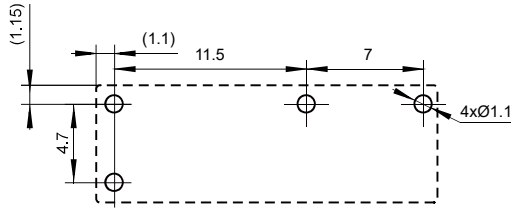
Outline Dimensions



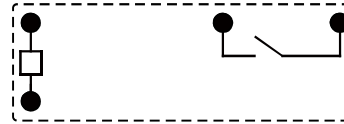
OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

PCB Layout(Bottom view)



Wiring Diagram(Bottom view)



- Notes: 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 $\leq 1\text{mm}$, 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 $\pm 0.4\text{mm}$.
- 3) The tolerance without indicating for PCB layout is always $\pm 0.1\text{mm}$.

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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