

HF115FK-T

MINIATURE HIGH POWER RELAY



File No.:E134517



File No.:116934



File No.:CQC13002103948



Features

- High temperature: 105°C
- Low height: 15.7 mm
- 16A switching capability
- 5kV dielectric strength (between coil and contacts)
- Creepage distance: 10mm
- Meeting reinforce insulation
- Product in accordance to IEC 60335-1 available
- Sockets available
- UL insulation system: Class F
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (29.0 x 12.7 x 15.7) mm

CONTACT DATA

| | |
|----------------------------|---|
| Contact arrangement | 1A, 1C |
| Contact resistance | 100mΩ max.(at 1A 6VDC) |
| Contact material | AgSnO ₂ |
| Contact rating (Res. load) | 16A 250VAC |
| Max. switching voltage | 400VAC |
| Max. switching current | 16A |
| Max. switching power | 4000VA |
| Mechanical endurance | 1 x 10 ⁷ OPS |
| Electrical endurance | H3T type: 3 x 10 ⁴ OPS (16A 250VAC, Resistive Load, at 105°C, 1s on 9s off) |

CHARACTERISTICS

| | | |
|---|-------------------------|---------------------|
| Insulation resistance | 1000MΩ (at 500VDC) | |
| Dielectric strength | Between coil & contacts | 5000VAC 1min |
| | Between open contacts | 1000VAC 1min |
| Surge voltage (between coil & contacts) | 10kV (1.2 x 50μs) | |
| Operate time (at nomi. volt.) | 10ms max. | |
| Release time (at nomi. volt.) | 5ms max. | |
| Shock resistance * | Functional | 98m/s ² |
| | Destructive | 980m/s ² |
| Vibration resistance * | 10Hz to 150Hz 10g/5g | |
| Humidity | 5% to 85% RH | |
| Ambient temperature | -40°C to 105°C | |
| Termination | PCB | |
| Unit weight | Approx. 13g | |
| Construction | Flux proofed | |

Notes: 1) The data shown above are initial values.
2) * Index is not in relay length direction.

COIL

| | |
|------------|---------------|
| Coil power | Approx. 400mW |
|------------|---------------|

COIL DATA

at 23°C

| Nominal Voltage VDC | Pick-up Voltage VDC max. | Drop-out Voltage VDC min. | Max. Voltage VDC * | Coil Resistance Ω |
|---------------------|--------------------------|---------------------------|--------------------|-------------------|
| 5 | 3.50 | 0.5 | 7.5 | 62 x (1±10%) |
| 6 | 4.20 | 0.6 | 9.0 | 90 x (1±10%) |
| 9 | 6.30 | 0.9 | 13.5 | 202 x (1±10%) |
| 12 | 8.40 | 1.2 | 18 | 360 x (1±10%) |
| 18 | 12.60 | 1.8 | 27 | 810 x (1±10%) |
| 24 | 16.80 | 2.4 | 36 | 1440 x (1±10%) |
| 48 | 33.60 | 4.8 | 72 | 5760 x (1±15%) |

Notes: *Maximum voltage refers to the maximum voltage which relay coil could endure in a short period of time.

SAFETY APPROVAL RATINGS

| | |
|--------|--|
| UL/CUL | 16A 250VAC at 105°C |
| VDE | 16A 250VAC at 105°C 10A 250VAC at 105°C |

Notes: 1) All values unspecified are at room temperature.
2) Only typical loads are listed above. Other load specifications can be available upon request.



HONGFA RELAY

ISO9001, ISO/TS16949, ISO14001, OHSAS18001, IECQ QC 080000 CERTIFIED

2015 Rev. 1.00

ORDERING INFORMATION

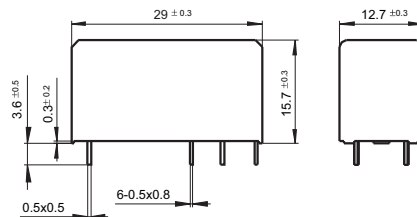
| | | | | | | |
|--------------------------------|-----------------------------------|----|---------------|---|---|-------|
| Type | HF115FK-T/ | 12 | -H | 3 | T | (XXX) |
| Coil voltage | 5, 6, 9, 12, 18, 24, 48VDC | | | | | |
| Contact arrangement | H: 1 Form A Z: 1 Form C | | | | | |
| Version | 3: 5.0mm 1 pole 16A | | | | | |
| Contact material ¹⁾ | T: AgSnO ₂ | | | | | |
| Special code ³⁾ | XXX: Customer special requirement | | Nil: Standard | | | |

- Notes:** 1) We recommend flux proofed types for a clean environment (free from contaminations like H₂S, SO₂, NO₂, dust, etc.).
 2) Contact is recommended for suitable condition and specifications if water cleaning or surface process is involved in assembling relays on PCB.
 3) 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).

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

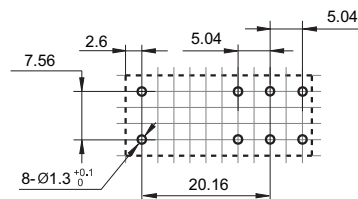
Outline Dimensions



Wiring Diagram (Bottom view)

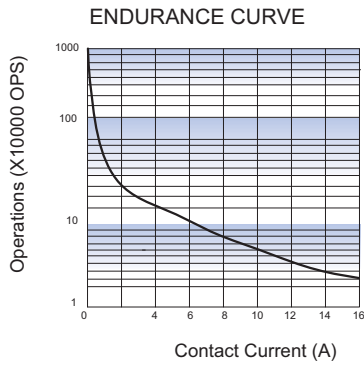


PCB Layout (Bottom view)

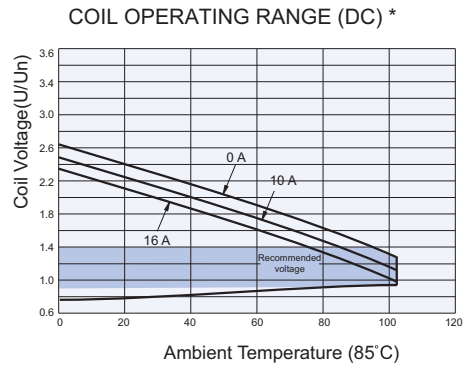


- Remark:** 1) In case of no tolerance shown in outline dimension: outline dimension ≤ 1 mm, tolerance should be ± 0.2 mm; outline dimension > 1 mm and ≤ 5 mm, tolerance should be ± 0.3 mm; outline dimension > 5 mm, tolerance should be ± 0.4 mm.
 2) The tolerance without indicating for PCB layout is always ± 0.1 mm.
 3) The width of the gridding is 2.52mm.

CHARACTERISTIC CURVES



Test conditions:
 NO, resistive load, 250VAC, flux proofed,
 at 105°C, 1s on 9s off



Notes: * The use of a relay with an energising voltage other than the rated coil voltage may lead to reduced electrical life. An energising voltage over the abver range may damage the insulation of relay coil.

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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