

HF3FD

SUBMINIATURE HIGH POWER RELAY



File No.: E134517



File No.: 40014057



Features

- Extremely low cost
- 2.5KV dielectric strength (between coil and contacts)
- Flammability class according to UL94, V-0
- CTI 250 ,VDE 0631 / 0700
- 1 From A and 1 From C configurations
- Subminiature, standard PCB layout
- Product in accordance to IEC 60335-1
- Environmental friendly product available (RoHS compliant)
- Outline Dimensions: 19.0 x 15.2 x 15.5 mm

CONTACT DATA

Contact arrangement	1A	1C
Initial contact resistance Max.	100mΩ (at 1A 6VDC)	
Contact material	AgSnO ₂ , AgNi	
Contact rating (Res. load)	10A 250VAC 10A 28VDC	NO: 10A 250VAC/28VDC NO/NC: 7A/3A 250VAC NO/NC: 5A/5A 250VAC
Max. switching voltage	277VAC/30VDC	
Max. switching current	15A	10A
Max. switching power	2770VA / 300W	
Mechanical life	1 x 10 ⁷ OPS	
Electrical life	1 x 10 ⁵ OPS	

CHARACTERISTICS

Initial insulation resistance	100MΩ (at 500VDC)	
Dielectric strength	Between coil & contacts	2000VAC/2500VAC, 1min
	Between open contacts	750VAC, 1min
Operate time (at nomi. volt.)	Max. 10ms	
Release time (at nomi. volt.)	Max. 5ms	
Temperature rise (at nomi. volt.)	Max. 60°C	
Shock resistance	Functional	98 m/s ² (10g)
	Destructive	980 m/s ² (100g)
Vibration resistance	10 to 55Hz 1.5mm	
Humidity	35 to 85% RH	
Ambient temperature	-40°C to +105°C	
Termination	PCB	
Unit weight	Approx. 10g	
Construction	Sealed IP67, Flux proof	

COIL

Coil power	360mW
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COIL DATA

Nominal Voltage (VDC)	Pick-up Voltage (VDC)	Drop-out Voltage (VDC)	Max. Allowable Voltage (VDC) 25°C	Coil Resistance (Ω)
3	2.25	0.3	3.9	25 ± 10%
5	3.75	0.5	6.5	70 ± 10%
6	4.50	0.6	7.8	100 ± 10%
9	6.75	0.9	11.7	225 ± 10%
12	9.00	1.2	15.6	400 ± 10%
18	13.5	1.8	23.4	900 ± 10%
24	18.0	2.4	31.2	1600 ± 10%
48	36.0	4.8	62.4	6400 ± 10%

SAFETY APPROVAL RATINGS

UL & CUR	Contact Material	1A	10A 250VAC at 85°C NO/NC: 5A/5A 250VAC at 85°C NO: 10A 250VAC at 85°C NO: 1/2HP 125VAC NO: TV-5 120VAC
		1C	10A 250VAC at 85°C 6A 250VAC at 105°C NO: 10A 250VAC at 85°C NO: 6A 250VAC at 105°C NC: 6A 250VAC at 85°C NO/NC: 7A/3A 250VAC at 85°C NO: 1/2HP 125VAC
VDE	AgSnO ₂	1A	10A 250VAC at 85°C
		1C	NO/NC: 5A/5A 250VAC at 85°C NO: 10A 250VAC at 85°C
	AgNi	1A	10A 250VAC at 85°C 6A 250VAC at 105°C
		1C	NO: 10A 250VAC at 85°C NO: 6A 250VAC at 105°C NC: 6A 250VAC at 85°C NO/NC: 7A/3A 250VAC at 85°C



HONGFA RELAY

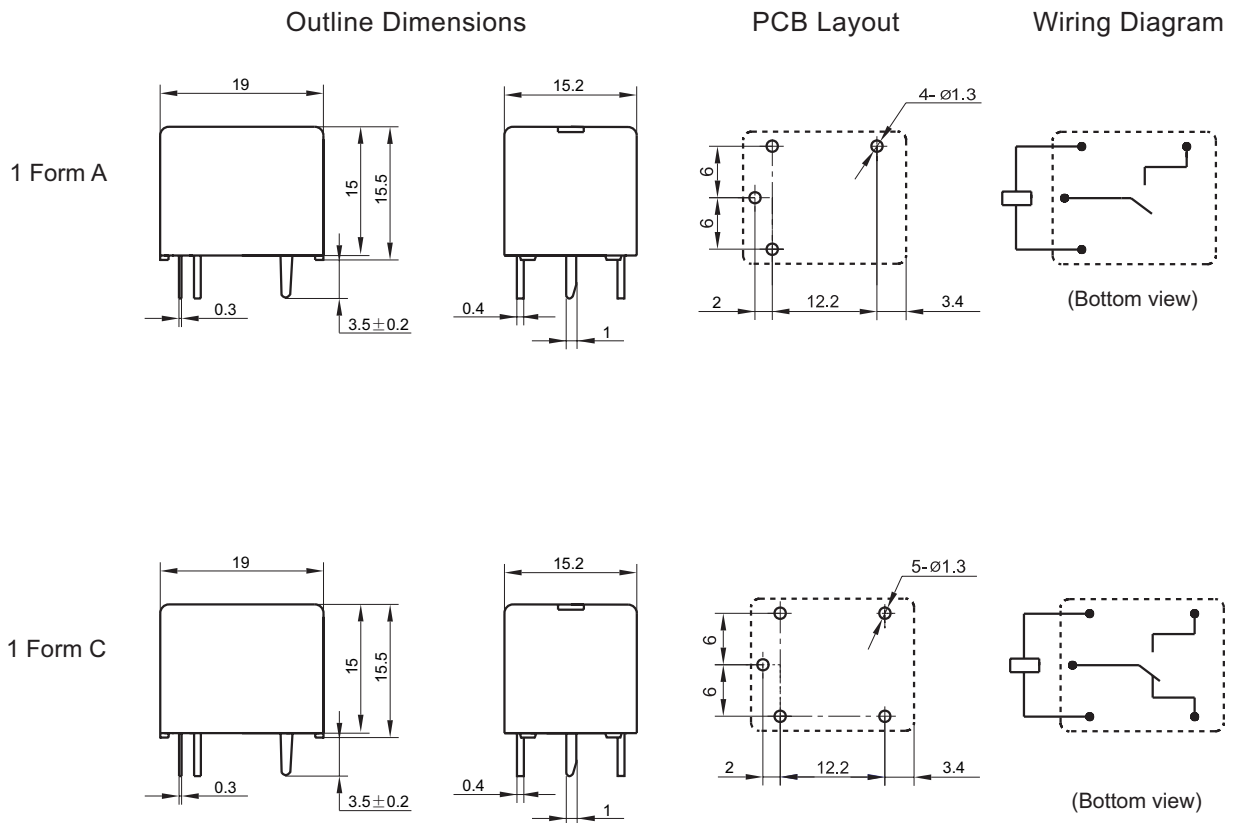
ISO9001, ISO/TS16949, ISO14001, OHSAS18001 CERTIFIED

2006 Rev. 1.21

ORDERING INFORMATION

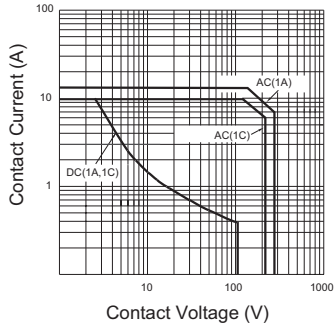
		HF3FD / 012		H	S	T	F	XXX
Type	HF3FD: Dielectric Strength 2000VAC HF3FD-1: Dielectric Strength 2500VAC							
Coil voltage	3, 5, 6, 9, 12, 18, 24, 48VDC							
Contact arrangement	H:1 Form A Z:1 Form C							
Construction	S: Sealed IP67 Nil: Flux proof							
Contact material	T: AgSnO ₂ 3: AgNi							
Insulation system	F: Class F Nil: Class B							
Customer special code	Only for special requirements, e.g. 555 stands for RoHS compliant							

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

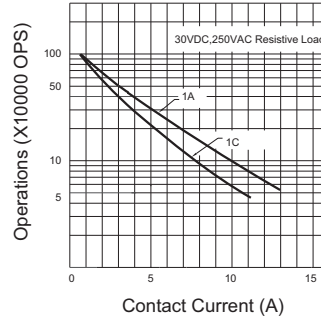


CHARACTERISTIC CURVES

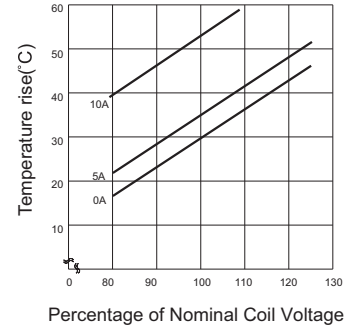
MAXIMUM SWITCHING POWER



LIFE CURVE



COIL TEMPERATURE RISE



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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