HF32F-G SUBMINIATURE INTERMEDIATE POWER RELAY

File No.: E134517

File No.: 40012204

Features

- 10A switching capability
- 1 Form A configuration
- Subminiature, standard PCB layout
- Wash tight and flux proofed types available
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (18.4 x 10.2 x 15.3) mm

CONTACT DATA

Contact arrangement	1A
Contact resistance	100mΩ (at 1A 6VDC)
Contact material	AgNi, AgCdO
Contact rating (Res. load)	10A 250VAC 10A 30VDC
Max. switching voltage	250VAC / 30VDC
Max. switching current	10A
Max. switching power	2500VA / 300W
Mechanical endurance	1 x 10^6OPS
Electrical endurance	1 x 10^5OPS

COIL

Coil power	450mW

COIL DATA

at 23˚C

Nominal Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Max. Allowable Voltage VDC	Coil Resistance Ω
3	2.25	0.15	3.9	20 x (1±10%)
5	3.75	0.25	6.5	55 x (1±10%)
6	4.50	0.30	7.8	80 x (1±10%)
9	6.75	0.45	11.7	180 x (1±10%)
12	9.00	0.60	15.6	320 x (1±10%)
18	13.5	0.90	23.4	720 x (1±10%)
24	18.0	1.20	31.2	1280 x (1±10%)
48	36.0	2.40	62.4	5120 x (1±10%)

CHARACTERISTICS

Insulation resistance		1000MΩ (at 500VDC)
Dielectric strength	Between coil & contacts	2500VAC 1min
	Between open contacts	1000VAC 1min
Operate time (at nomi. volt.)		8ms max.
Release time (at nomi. volt.)		5ms max.
Humidity		35% to 95% RH
Ambient temperature		-40˚C to 70˚C
Shock resistance	Functional	98m/s^2
	Destructive	980m/s^2
Vibration resistance		10Hz to 55Hz 1.5mm DA
Termination		PCB
Unit weight		Approx. 6g
Construction		Wash tight, Flux proofed

Notes: 1) The data shown above are initial values.
2) Please find coil temperature curve in the characteristic curves below.

SAFETY APPROVAL RATINGS

UL&CUL	10A 277VAC / 250VDC at 85°C 12A 125VAC at 85°C 10A 30VDC at 85°C
VDE	10A 250VDC at 85°C 12A 125VAC at 85°C 10A 30VDC at 85°C

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

ORDERING INFORMATION

HF32F-G / 012 -H S 3 (XXX)

Type

Coil voltage 3, 5, 6, 9, 12, 18, 24, 48VDC

Contact arrangement **H:** 1 Form A **Z:** 1 Form C

Construction [1] **S:** Wash tight **Nil:** Flux proofed

Contact material **3:** AgNi **Nil:** AgCdO

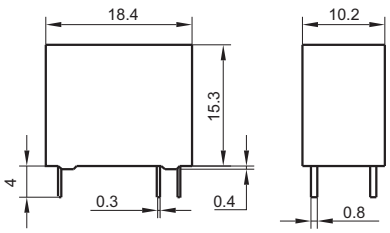
Customer special code

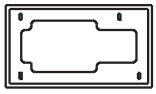
Notes: 1) Under the ambience with dangerous gas like H_2S, SO_2 or NO_2, wash tight type is recommended; please test the relay in real applications. If the ambience allows, flux proofed is preferentially recommended.

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

Outline Dimensions

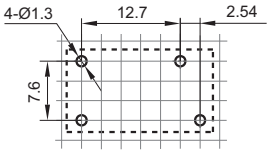




(Bottom view)

Wiring Diagram
(Bottom view)

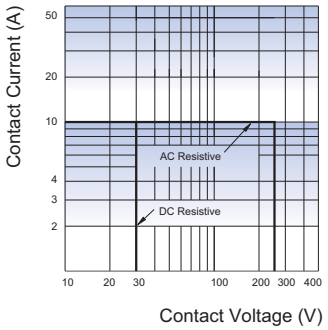
PCB Layout
(Bottom view)



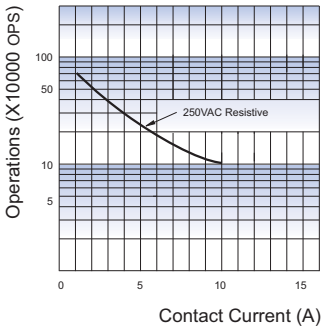
Remark: 1) In case of no tolerance shown in outline dimension: outline dimension ≤1mm, tolerance should be ±0.2mm; outline dimension >1mm and ≤5mm, tolerance should be ±0.3mm; outline dimension >5mm, tolerance should be ±0.4mm.
2) The tolerance without indicating for PCB layout is always ±0.1mm.
3) The width of the gridding is 2.54mm.

CHARACTERISTIC CURVES

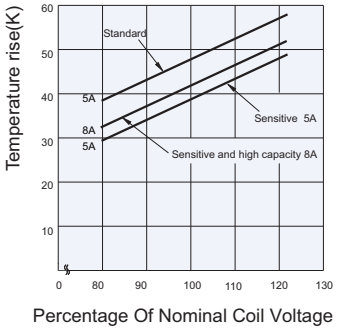
MAXIMUM SWITCHING POWER



EDURANCE 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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