HF7FF (JZC-7FF) SUBMINIATURE INTERMEDIATE POWER RELAY

c UL us
File No.:E134517

CQC
File No.:CQC02001001942

Features

- 10A switching capability
- Low cost, Small package
- 1 Form A and 1 Form C configurations
- Wash tight and flux proofed types available
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (22.5 x 16.5 x 16.5) mm

CONTACT DATA

Contact arrangement	1A, 1C
Contact resistance	100mΩ (at 1A 6VDC)
Contact material	$AgSnO_2$, AgCe
Contact rating (Res. load)	5A 250VAC/30VDC 10A 250VAC/28VDC
Max. switching voltage	250VAC/30VDC
Max. switching current	10A
Max. switching power	2400VA / 280W
Mechanical endurance	1 x 10^7OPS
Electrical endurance	1 x 10^5OPS

COIL

Coil power	5 to 24VDC: 360mW; 48VDC: 510mW

COIL DATA at 23°C

Nominal Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Max. Allowable Voltage VDC	Coil Resistance Ω
3	2.40	0.3	3.6	25 x (1±10%)
5	4.00	0.5	6.0	70 x (1±10%)
6	4.80	0.6	7.2	100 x (1±10%)
9	7.20	0.9	10.8	225 x (1±10%)
12	9.60	1.2	14.4	400 x (1±10%)
18	14.4	1.8	21.6	900 x (1±10%)
24	19.2	2.4	28.8	1600 x (1±10%)
48	38.4	4.8	57.6	4500 x (1±10%)

CHARACTERISTICS

Insulation resistance		100MΩ (at 500VDC)
Dielectric strength	Between coil & contacts	1500VAC
	Between open contacts	750VAC
Operate time (at nomi. volt.)		10ms max.
Release time (at nomi. volt.)		5ms max.
Shock resistance	Functional	100m/s²(10g)
	Destructive	1000m/s²(100g)
Vibration resistance		10Hz to 55Hz 1.5mm DA
Humidity		35% to 95% RH
Ambient temperature		-40°C to 70°C
Termination		PCB
Unit weight		Approx. 13g
Construction		Wash tight, Flux proofed

Notes: The data shown above are initial values.

SAFETY APPROVAL RATINGS

UL&CUR	1 Form C	12A 277VAC/28VDC 5A 30VDC 5A 120VAC NO: 4FLA, 4LRA 120VAC NC: 2FLA, 4LRA 120VAC
	1 Form A	12A 277VAC/28VDC 6A 30VDC 1/3 HP 125VAC 2.9A 125VAC 4FLA, 4LRA 120VAC

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

ORDERING INFORMATION

	HF7FF /	012	-1H	T	S	F	(XXX)
Type [1]	HF7FF JZC-7FF (Old type)						
Coil voltage	3, 5, 6, 9, 12, 18, 24, 48VDC						
Contact arrangement	**1H:** 1 Form A	**1Z:** 1 Form C					
Contact material	**T:** $AgSnO_2$ (10A)	**Nil:** AgCe (5A)					
Construction [2]	**S:** Wash tight	**Nil:** Flux proofed					
Insulation standard	**F:** Class F	**Nil:** Class B					
Customer special code [3]	Only for special requirements, e.g. (555) stands for RoHS compliant						

Notes: 1) We have now gradually updated our ordering information. We suggest new type should be selected. If necessary, old type can be kept for some period for the old customers.

2) 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.

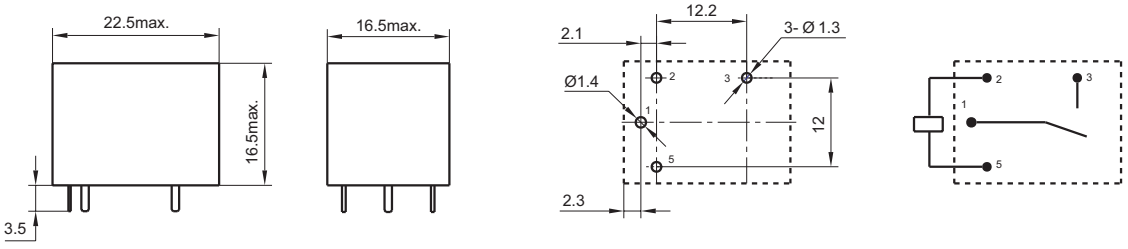
3) HF7FF is an environmental friendly product. Please mark a special code (555) when ordering.

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

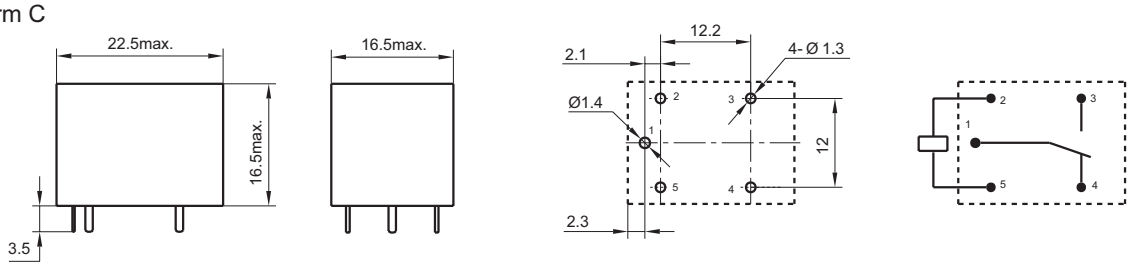
Unit: mm

Outline Dimensions | PCB Layout (Bottom view) | Wiring Diagram (Bottom view)

1 Form A



1 Form C

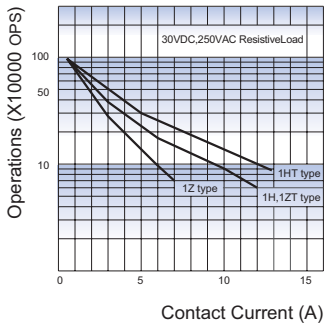


Remark: 1) In case of no tolerance shown in outline dimension: outline dimension ≤1mm, tolerance should be ±0.2mm; outline dimension >1mm and ≤5mm, tolerance should be ±0.3mm; outline dimension >5mm, tolerance should be ±0.4mm.

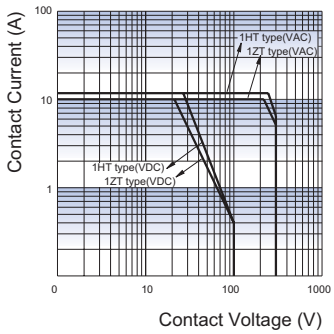
2) The tolerance without indicating for PCB layout is always ±0.1mm.

CHARACTERISTIC CURVES

ENDURANCE CURVE



MAXIMUM SWITCHING POWER



COIL TEMPERATURE RISE