FH14T/FH14HV Power Relay

Features

- 17A switching capability
- Products with operating temperature of 105℃ are available
- UL insulation system:Class F
- Ultra - small type,standard PCB terminals.
- Outline Dimensions:(21.1*16.2*21.6)mm
- Main application:Household appliances

■ CHARACTERISTICS

Specifications	Item		FH14T	FH14HV
Contact Data	Contact arrangement		1A、1B、1C	
	Contact resistance		≤100mΩ(6VDC 1A)	
	Contact material		$AgSnO_2$	
Rated value	Rated load(Resistance load)		17A 250VAC	
	Max.switching voltage		277VAC	
	Max.switching current		20A	
	Max.switching capacity		4250VA	
	Min.allowing load		5VDC 100mA	
Electrical performance	Insulation resistance(initial)		100MΩ(500VDC)	
	Dielectric strength (initial)	Between open contacts	1000VAC,1min	
		Between coil&contacts	2500VAC,1min	3500VAC,1min
	Operate time		≤15ms	
	Release time		≤10ms	
Mechanical performance	Shock resistance	Functional	$98m/s^2$(10g)	
		Destructive	$980m/s^2$(100g)	
	Vibration resistance		10Hz~55Hz 1.5mm DA	
Endurance	Mechanical		$1×10^7$ops	
	Electrical(Room temperature)		17A 250VAC	$5×10^4$ops (ON/OFF=1s/9s)
Operate condition	Ambient temperature		-40℃~105℃	
	Humidity		5% to 90%	
Termination			PCB	
Unit weight			Approx.15g	
Construction			Plastic sealed、Flux proofed	

■ COIL DATA(23℃)

■ Standard Type

Nominal Voltage	Operate Voltage VDC	Release Voltage VDC	Rated Current (±10%)	Coil Resistance (±10%)	Nominal Power	Max Voltage
DC 3V	≤2.25	≥0.15	120mA	25Ω	360mW	DC 3.9V
DC 5V	≤3.75	≥0.25	72mA	69.4Ω		DC 6.5V
DC 6V	≤4.50	≥0.30	60mA	100Ω		DC 7.8V
DC 9V	≤6.75	≥0.45	40mA	225Ω		DC 11.7V
DC 12V	≤9.00	≥0.60	30mA	400Ω		DC 15.6V
DC 15V	≤11.25	≥0.75	24mA	625Ω		DC 19.5V
DC 18V	≤13.50	≥0.90	20mA	900Ω		DC 23.4V
DC 24V	≤18.00	≥1.20	15mA	1600Ω		DC 31.2V
DC 48V	≤36.00	≥2.40	7.5mA	6400Ω		DC 62.4V

■ ORDERING INFORMATION

FH14T/ FH14HV -1A S T -XXX DC12V

① Type:FH14T=Standard Type
FH14HV=High Dielectric Strength Type

② Contact arrangement:1A=1open contacts、
1B=1close contacts、1C=1 switched contacts

③ Construction(1):Nil=Flux proofed,S=Plastic sealed

④ Contact material:T=$AgSnO_2$

⑤ Customer special code:numbers or letters denote customer's requirements

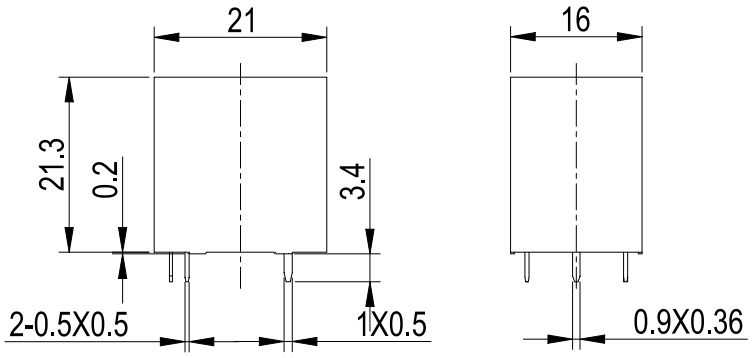
⑥ Coil specification:DC3/5/6/9/12/15/18/24/48V

(1) When used in clean environment(excluding H_2S,SO_2,NO_2,dust and other pollutants), it is recommended to choose the Flux proofed type;When used in unclean environment(contain H_2S,SO_2,NO_2,dust and other pollutants), it is recommended to choose the Plastic sealed.

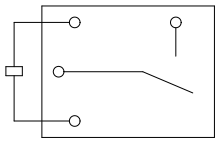
■ OUTLINE DIMENSIONS,WIRING DIAGRAM AND PC BOARD LAYOUT(Unit:mm)

FH14T-1A

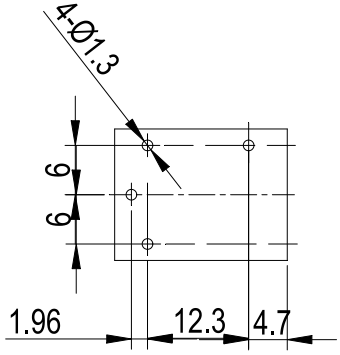
Outline Dimensions



Wiring Diagram
(Bottom view)

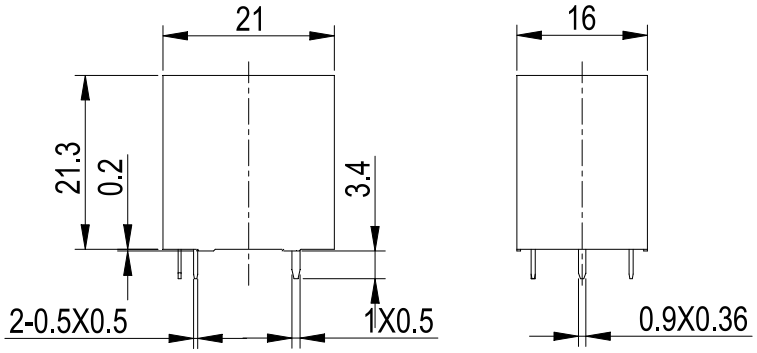


PCB Layout
(Bottom view)

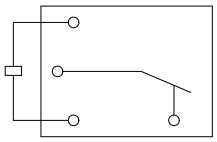


FH14T-1B

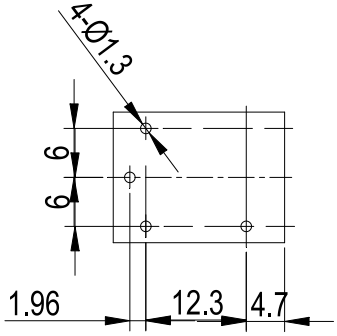
Outline Dimensions



Wiring Diagram
(Bottom view)

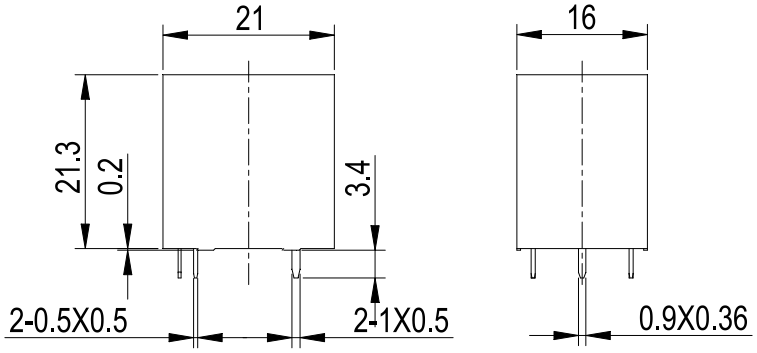


PCB Layout
(Bottom view)

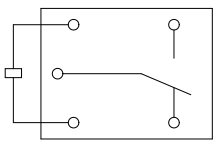


FH14T-1C

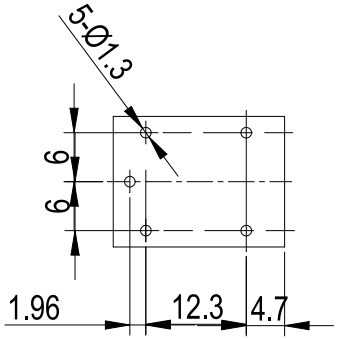
Outline Dimensions



Wiring Diagram
(Bottom view)

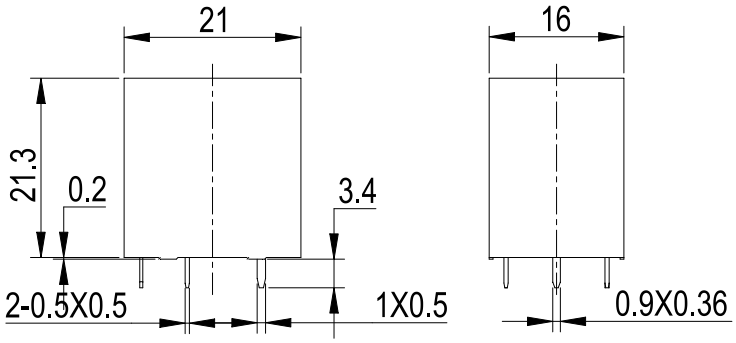


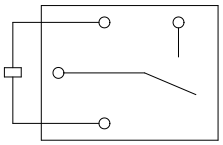
PCB Layout
(Bottom view)

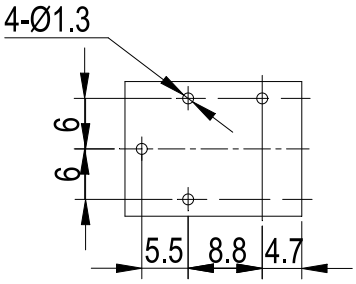


■ OUTLINE DIMENSIONS,WIRING DIAGRAM AND PC BOARD LAYOUT(Unit:mm)

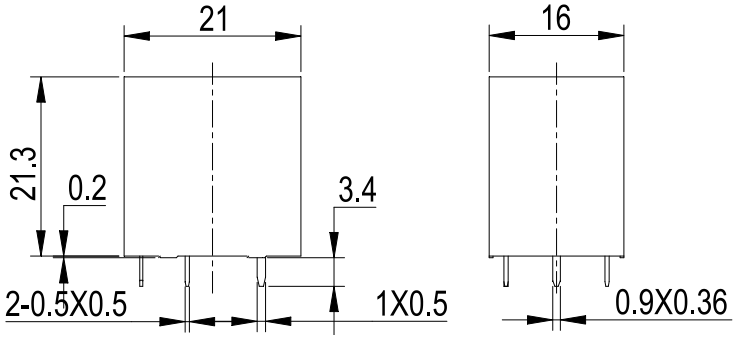
FH14HV-1A Outline Dimensions | Wiring Diagram (Bottom view) | PCB Layout (Bottom view)

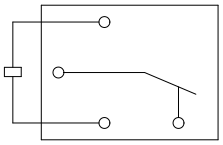


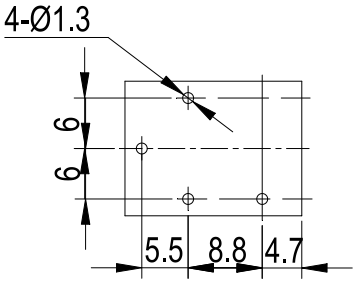




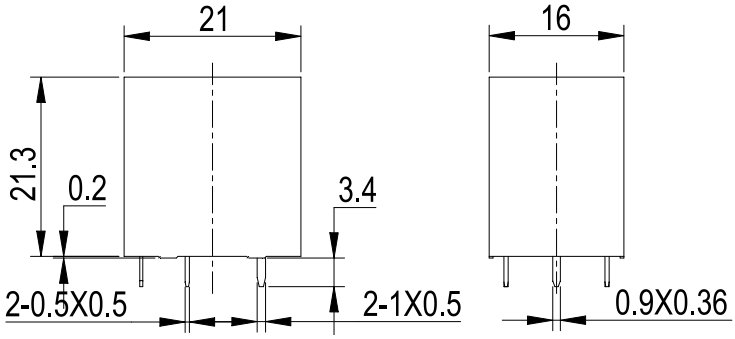
FH14HV-1B Outline Dimensions | Wiring Diagram (Bottom view) | PCB Layout (Bottom view)

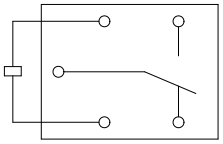


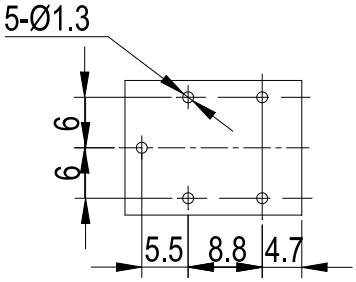




FH14HV-1C Outline Dimensions | Wiring Diagram (Bottom view) | PCB Layout (Bottom view)







Remark: ⑴ 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 ±0.5mm.

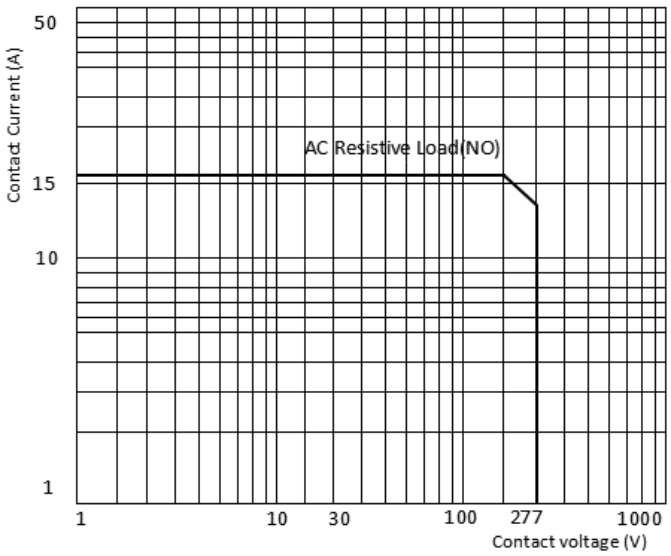
⑵ The tolerance without indicating for PCB layout is always ±0.1mm.

■ SAFETY APPROVAL RATINGS

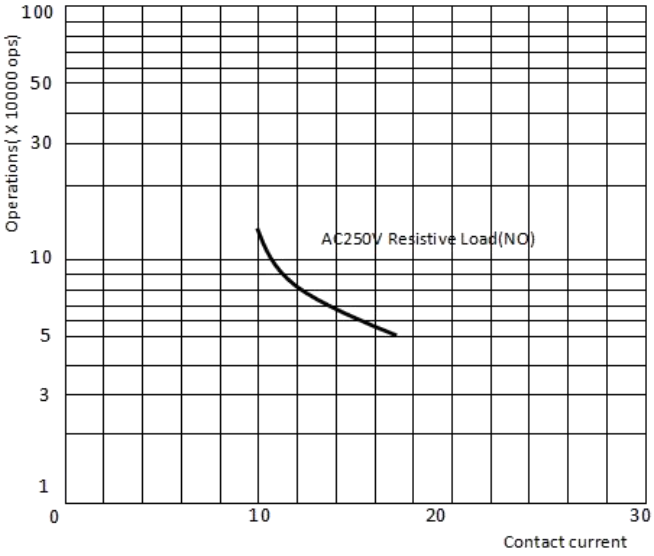
Approval	File No.	Contact material	Approved ratings		
UL/C-UL	E475405	$AgSnO_2$	NO: 20A	250VAC/125VAC	85℃
			NO: 17/16/12/10A	277VAC/250VAC	85/105℃
			NC: 20/17A	250VAC/125VAC	85℃
			NC: 10/7A	277VAC/250VAC	85/105℃
			NC: 5A	277VAC E-ballast	85℃
TUV	R 50588016	$AgSnO_2$	NO: 20A	250VAC/125VAC	85℃
			NO: 17/16/12/10A	277VAC/250VAC	85/105℃
			NC: 20/17A	250VAC/125VAC	85℃
			NC: 10/7A	277VAC/250VAC	85/105℃
CQC	CQC23002391954	$AgSnO_2$	NO: 20A	250VAC/125VAC	85℃
			NO: 17/16/12/10A	277VAC/250VAC	85/105℃
			NC: 20/17A	250VAC/125VAC	85℃
			NC: 10/7A	277VAC/250VAC	85/105℃

■ PERFORMANCE CURVES

MAXIMUM SWITCHING POWER



MAXIMUM SWITCHING POWER



■ NOTICE

① In order to maintain the initial performance parameters of the relay, please be careful not to drop the product;

② The specification is for reference only.Specifications subject to change without notice.