

Features

- 20A 14VDC switching capability
- Contact arrangement:1A, 1C
- Standard PCB terminal
- Plastic sealed,Flux proofed
- Small size,light weight
- UL insulation system:Class F
- Environment-friendly product(RoHS compliant)
- Outline Dimensions:(15.5×12.0×13.7)mm
- Main application:Automobile door lock, Automatic doors and Windows, Turn light



■ CHARACTERISTICS

Specifications	Item		Standard load	High load
Contact Data	Contact arrangement		1A, 1C	
	Contact resistance(initial)		≤100mΩ(6VDC 1A)	
	Contact material		AgSnO ₂	
Rated value	Rated load(Resistance load)		5A 250VAC 20A 14VDC	10A 250VAC 10A 28VDC
	Max.switching voltage		250VAC/16VDC	
	Max.switching current		20A	
	Max.switching capacity		1250VA/280W	
	Min.allowing load		5VDC 100mA	
Electrical performance	Insulation resistance(initial)		1000MΩ(500VDC)	
	Dielectric strength (initial)	Between open contacts	750VAC, 1min	
		Between coil&contacts	750VAC, 1min	
	Operate time		≤10ms	
	Release time		≤5ms	
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 ⁶ ops	
	Electrical(Room temperature)		5A 250VAC 1×10 ⁵ ops (ON/OFF=1s/9s) 20A 14VDC 1×10 ⁵ ops (ON/OFF=1s/9s)	10A 250VAC 1×10 ⁵ ops (ON/OFF=1s/9s) 10A 28VDC 1×10 ⁵ ops (ON/OFF=1s/9s)
Operate condition	Ambient temperature		-40℃~85℃	
	Humidity		5% to 90%	
Termination			PCB	
Unit weight			Approx.6g	
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 5V	≤3.75	≥0.25	120mA	41.7Ω	600mW	DC 6.5V
DC 6V	≤4.50	≥0.30	100mA	60Ω		DC 7.8V
DC 9V	≤6.75	≥0.45	66.7mA	135Ω		DC 11.7V
DC 12V	≤9.00	≥0.60	50mA	240Ω		DC 15.6V
DC 15V	≤11.25	≥0.75	40mA	375Ω		DC 19.5V
DC 18V	≤13.50	≥0.90	33.3mA	540Ω		DC 23.4V
DC 24V	≤18.00	≥1.20	25mA	960Ω		DC 31.2V

■ Sensitive Type

Nominal Voltage	Operate Voltage VDC	Release Voltage VDC	Rated Current (±10%)	Coil Resistance (±10%)	Nominal Power	Max Voltage
DC 3V	≤2.40	≥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

■ ORDERING INFORMATION

FH28 -1A S T L E -XXX DC5V

① Type

② Contact arrangement: 1A=1 open contacts,
1C=1 switched contacts

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

④ Contact material: T=AgSnO₂

⑤ Coil power: Nil=Standard, L=Sensitive(type A only)

⑥ Load: Nil=Standard load E=High load

⑦ Customer special code: numbers or letters denote customer's requirements

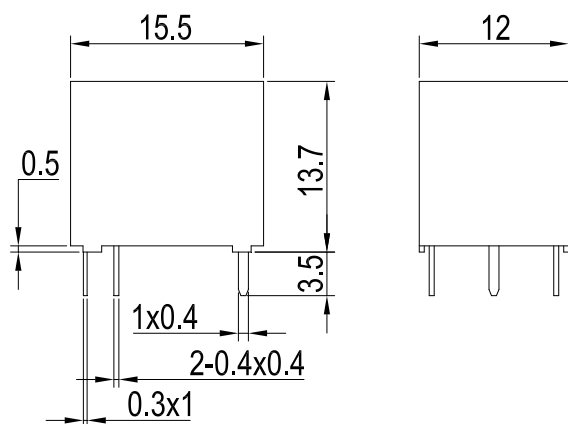
⑧ Coil specification: DC3/5/6/9/12/15/18/24V

(1) W

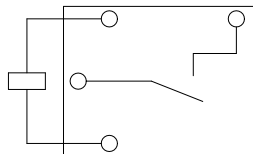
When used in clean environment(excluding H₂S, SO₂, NO₂, dust and other pollutants), it is recommended to choose the Flux proofed type; When used in unclean environment(contain H₂S, SO₂, NO₂, dust and other pollutants), it is recommended to choose the Plastic sealed.

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

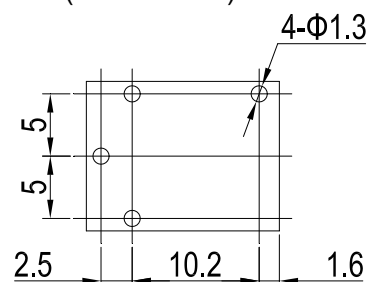
1A Outline Dimensions



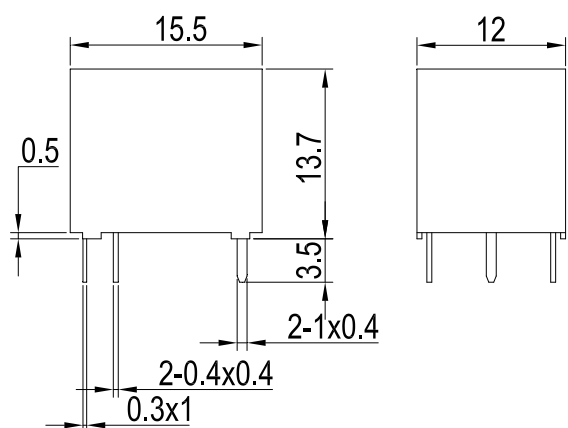
Wiring Diagram
(Bottom view)



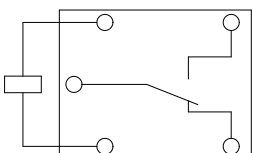
PCB Layout
(Bottom view)



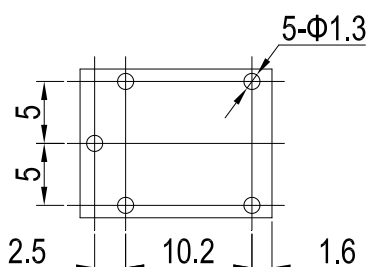
1C Outline Dimensions



Wiring Diagram
(Bottom view)



PCB Layout
(Bottom view)

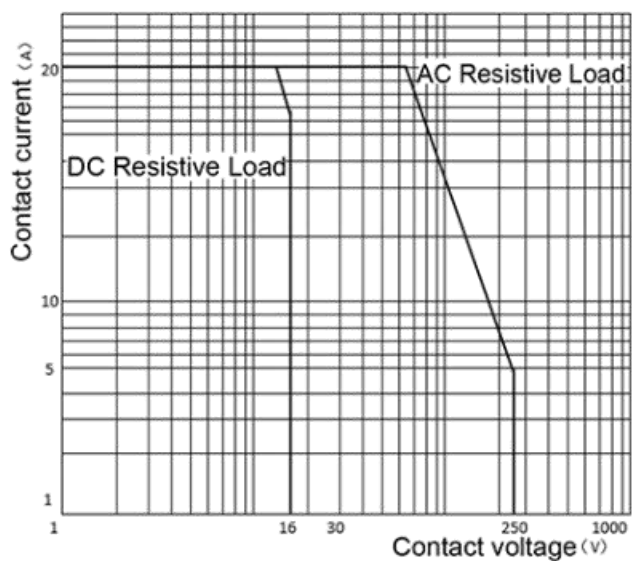


Remark: (1) In case of no tolerance shown in outline dimension: outline dimension $\leq 1\text{mm}$, tolerance should be $\pm 0.2\text{mm}$; outline dimension $> 1\text{mm}$ and $< 5\text{mm}$, tolerance should be $\pm 0.3\text{mm}$; outline dimension $\geq 5\text{mm}$, tolerance should be $\pm 0.5\text{mm}$.

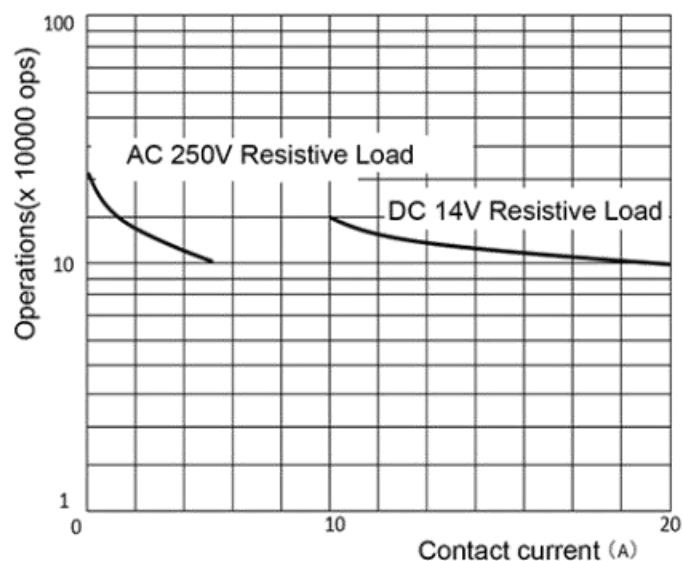
(2) The tolerance without indicating for PCB layout is always $\pm 0.1\text{mm}$.

■ PERFORMANCE CURVES

MAXIMUM SWITCHING POWER



ENDURANCE CURVE



■ 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.