

### Features

- 3A switching capability
- Contact arrangement: 1C
- High sensitivity, coil power is 200mW
- Standard dual-in-line terminal (DIP Construction)
- Ultra - small type, gold plated contact
- Environment-friendly product (RoHS compliant)
- Outline Dimensions::(15.5×10.5×11.5)mm
- Main application: Power protection, Automation, Communication



### CHARACTERISTICS

Specifications	Item		
Contact Data	Contact arrangement		
	1C		
	Contact resistance(initial)		
		≤100mΩ(6VDC 0.1A)	
		Contact material	
		AgNi+Gold plated	
Rated value	Rated load(Resistance load)		
	3A 250VAC		
	Max.switching voltage		
	277VAC		
	Max.switching current		
		5A	
		Max.switching capacity	
		750VA	
		Min.allowing load	
		5VDC 100mA	
Electrical performance	Insulation resistance(initial)		
	1000MΩ(500VDC)		
	Dielectric strength (initial)	Between open contacts	500VAC, 1min
		Between coil&contacts	1000VAC, 1min
	Operate time		
		≤10ms	
Release time			
		≤5ms	
Mechanical performance	Shock resistance	Functional	98m/s <sup>2</sup> (10g)
		Destructive	980m/s <sup>2</sup> (100g)
	Vibration resistance		10Hz~55Hz 1.5mm DA
Endurance	Mechanical		
			1×10 <sup>7</sup> ops
		Electrical(Room temperature)	3A 250VAC
			5×10 <sup>4</sup> ops (ON/OFF=1s/9s)
Operate condition	Ambient temperature		
			-25℃~70℃
		Humidity	5% to 85%
Termination			PCB(DIP Encapsulation)
Unit weight			Approx.5g
Construction			Plastic sealed, Flux proofed

## COIL DATA(23°C)

### Sensitive type(H 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	66.7mA	45Ω	200mW	DC 3.9V
DC 5V	≤3.75	≥0.25	40mA	125Ω		DC 6.5V
DC 6V	≤4.50	≥0.30	33.3mA	180Ω		DC 7.8V
DC 9V	≤6.75	≥0.45	22.2mA	405Ω		DC 11.7V
DC 12V	≤9.00	≥0.60	16.7mA	720Ω		DC 15.6V
DC 24V	≤18.00	≥1.20	8.3mA	2880Ω		DC 31.2V

### Standard type(N 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 24V	≤18.00	≥1.20	15mA	1600Ω		DC 31.2V

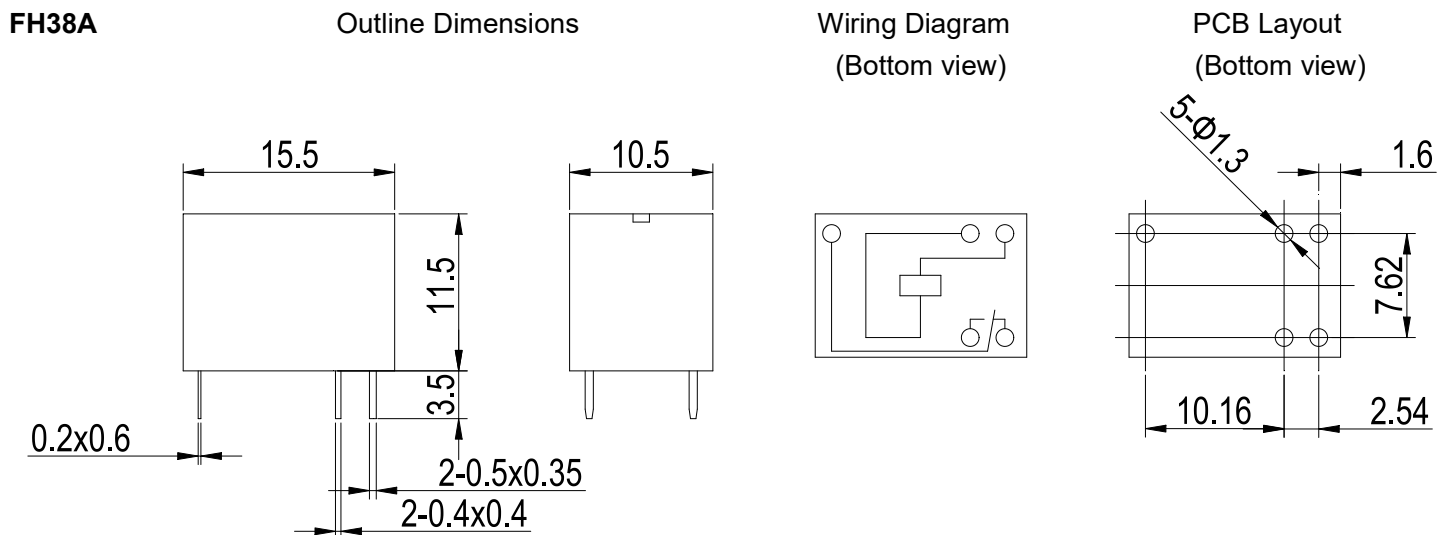
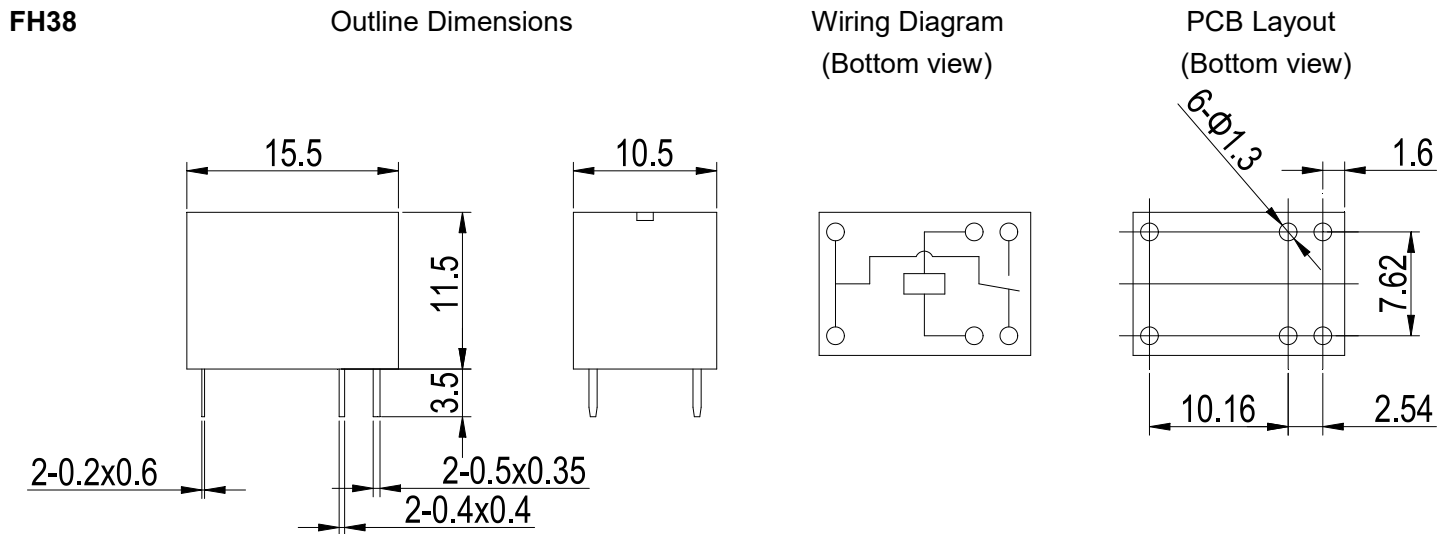
## ORDERING INFORMATION

**FH38/FH38A -1C S G H -XXX DC12V**

- ① Type:FH38, FH38A
- ② Contact arrangement:1C=1switched contacts
- ③ Construction(1):Nil=Flux proofed,S=Plastic sealed
- ④ Contact plating:Nil=have no gold plating, G=gold plating
- ⑤ Rated power:H:200mW, N:360mW
- ⑥ Customer special code:numbers or letters denote customer's requirements
- ⑦ Coil specification:DC3/5/6/9/12/15/18/24/48V

- (1) When used in clean environment(excluding H<sub>2</sub>S,SO<sub>2</sub>,NO<sub>2</sub>,dust and other pollutants), it is recommended to choose the Flux proofed type;When used in unclean environment(contain H<sub>2</sub>S,SO<sub>2</sub>,NO<sub>2</sub>,dust and other pollutants), it is recommended to choose the Plastic sealed.

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



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  $\pm 0.5\text{mm}$ .

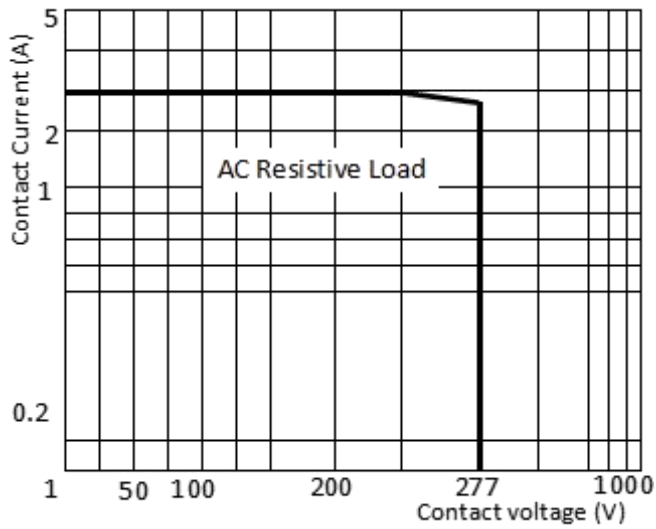
(2) The tolerance without indicating for PCB layout is always  $\pm 0.1\text{mm}$ .

## SAFETY APPROVAL RATINGS

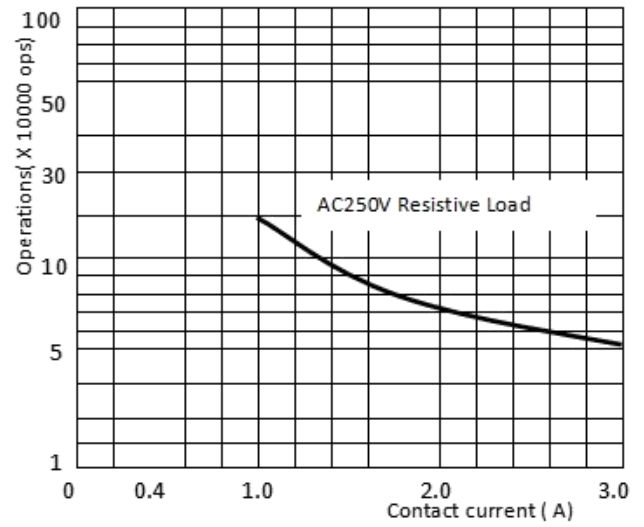
Approval	File No.	Contact arrangement	Contact material	Approved ratings
UL/C-UL	/	/	/	/
TUV	/	/	/	/
CQC	CQC21002287996	1C	AgNi	3A 250VAC 85°C 5A 125VAC 85°C

## ■ 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.