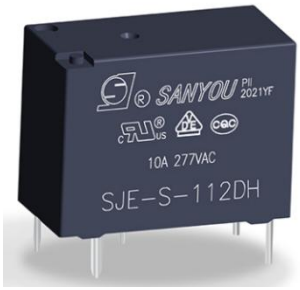
三友继电器
SANYOU RELAYS

Miniature Power Relay SJE



Features

- Small size (20.6x10.2x15.7mm) with 10A switching capability for high density PCB mounting.
- IP/OP 4KV,Withstand surge voltage of 8KV.
- Apply to air conditioner, refrigerator, microwave oven, stove etc.
- IEC60335-1 compliant product is available.
- IEC60079-15 compliant product is available.

Safety certificate

UL、cUL File No.：E190598

CQC File No.：CQC04001009429

VDE File No.：40035912

Contact Data

Type	SJE
Rated load (Resistive load)	10A 277VAC
Max. switching current	10A
Max. switching voltage	277VAC
Max. switching power	2,770VA
Min. switching load	6V 1A

Characteristics

Contact material	Silver alloy	
Contact resistance	100mΩ Max. (at 1A 6VDC)	
Operate time (at rated coil voltage)	10ms Max. (No diode)	
Release time	4ms Max. (No diode)	
Insulation resistance	Min. 1,000MΩ (at 500VDC)	
Dielectric strength	Between open contacts： 1000VAC, 50/60Hz for 1min.	
	Between coil and contact: 4000VAC, 50/60Hz for 1min.	
Vibration resistance	Destructive	10～55Hz, at double amplitude of 1.5mm
	Functional	10～55Hz, at double amplitude of 1.5mm
Shock resistance	Destructive	100G Min.
	Functional	10G Min.
Endurance	Mechanical endurance (10,800ops./h)	10,000,000(at room temperature)
	Electrical endurance (360ops./h)	100,000(at room temperature)
Ambient temperature	-40℃～+105℃ (No condensation)	
Weight	Approx. 6.5g	

Coil Data (at 20℃)

Nominal voltage (VDC)	Nominal operating current ± 10%(mA)	Coil resistance ±10%(Ω)	Max. allowable voltage	Operate voltage (Max.)	Release voltage (Min.)	Nominal operating power
3	150.00	20	130% of nominal voltage	75% of nominal voltage	5% of nominal voltage	Approx. 0.45W
5	90.00	55				
6	75.00	80				
9	50.00	180				
12	37.50	320				
18	25.00	720				
24	18.75	1,280				
48	9.38	5,120				
3	133.33	22.5	130% of nominal Voltage	75% of nominal voltage	5% of nominal voltage	Approx. 0.4W
5	80.00	62.5				
6	66.67	90				
9	44.44	202.5				
12	33.33	360				
18	22.22	810				
24	16.67	1,440				
48	8.33	5,760				
3	66.67	45	130% of nominal Voltage	75% of nominal voltage (80% of nominal voltage with Form C)	5% of nominal voltage	Approx. 0.2W
5	40.00	125				
6	33.33	180				
9	22.22	405				
12	16.67	720				
18	11.11	1,620				
24	8.33	2,880				
48	4.17	11,520				

The data shown above are initial values. Do not apply maximum allowable voltage on coil for more than 10 minutes to avoid overheating of the coil.

Safety Certificate Ratings (Note: More details of approved ratings, please refer to the safety certificates)			
Certificates	CQC	VDE	UL/CUL
File No.	CQC04001009429	40035912	E190598
Approved Ratings	10A 277VAC	10A 277VAC	10A 277VAC , Resistive 10A 277VAC , General Use

(1) All values unspecified are at room temperature.

(2) Only typical ratings are listed above and the endurance differ in each load. Other specific load information are available upon request.

(3) For sealed type testing, please open the ventilation hole in the case before test.

Ordering Information

Nomenclature

SJE	-S	-1	12	D	M	H	3	-F	-XX

Special Parameter :
Nil-Standard type ,
Letter or number-Special requirement

Insulation System : Nil - Standard,
B - Class B,
F - Class F

Contact Material : Nil - $AgSnO_2$, 2-AgNi ,
3 - $AgSnO_2$ For contact 3 Compounds(Form C) ,
4 - AgNi For contact 3 Compounds(Form C)

Load Capacity : Nil - Standard, H-10A

Contact Form : Nil - Form C , B - Form B , M - Form A

Coil Power : D-0.45W , E-0.4W , L-0.2W

Rated Coil Voltage(VDC) :
03 , 05 , 06 , 09 , 12 , 18 , 24 , 48

Number of Poles : 1-1Pole

Protective Construction :
S- Flux-proof
SH- Sealed type washable

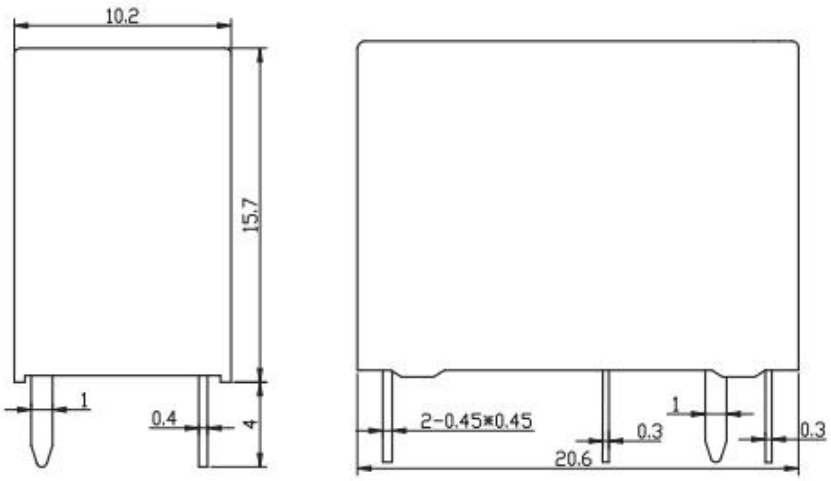
Type : SJE

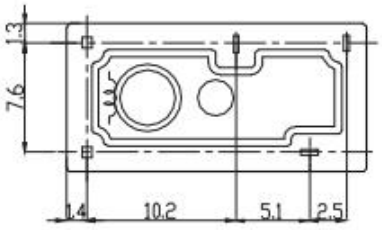
(1) Flux-proof relays can not be used in the environment with pollutants like H_2S, SO_2,NO_2, dust, etc.

(2) Water cleaning or surface process is not suggested after the flux-proof relays are assembled on PCB.

(3) Customized special suffix is available after being evaluated by Sanyou.

Outline dimension, wiring diagram, PCB layout (Unit: mm)

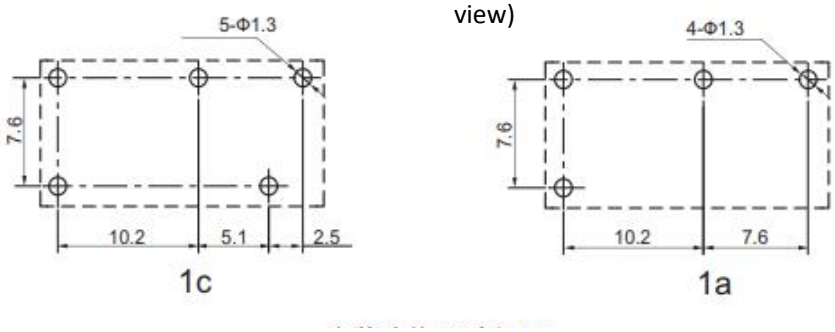




bottom view

In case of no tolerance shown on outline dimension
If dimension < 1 mm, tolerance：±0.2mm
If dimension 1~5mm, tolerance：±0.3mm
If dimension > 5mm, tolerance：±0.4mm
Note：
1. The dimension of pin is the size before tinning
2.Tolerance of PCB layout：±0.1 mm.

Wiring Diagram (bottom view)

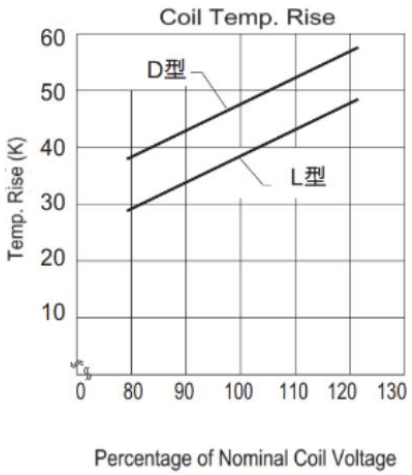


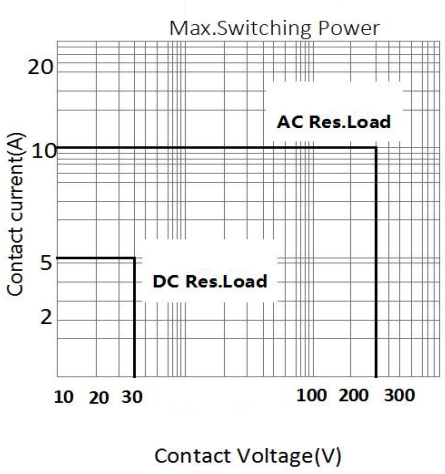
PCB Layout(bottom view)

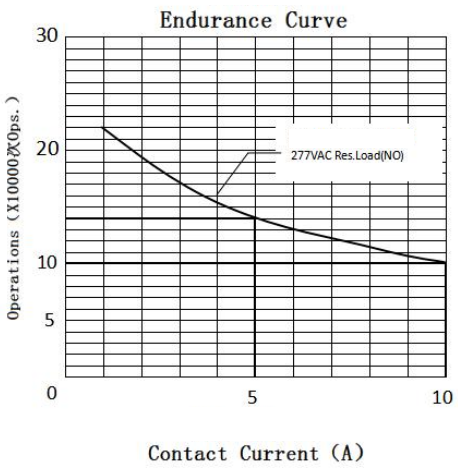
Typical Applications

•Home appliances •Office equipment •Audio equipment

Characteristic Curves







Note：

(1) Test conditions: room temperature, flux-proof product, resistive load, 1s on, 9s off.

(2)The above curves are for reference only, and the final result is subject to theexperiment.

Disclaimer：The specification is for reference only. Specifications are subject t

We could not evaluate all the performance and all the parameters for every possible applications. Thus the users should in a right position to choose suitable product for their own application. For sealed relays, after installation and cleaning, please open the ventilation hole in the case before use. If there is any query, please contact Sanyou for techn ical services. However it is the user's responsibility to determine which product should be used.