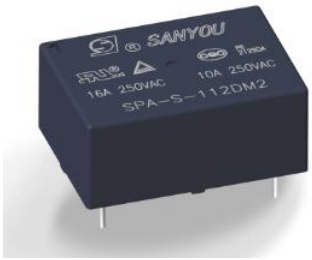
三友继电器 SANYOU RELAYS

Miniature Power Relay SPA



Features

- Small size with16A switching capability.
- Low coil power consumption：200mW available.

Safety certificate

UL/CUL File No. ：E179745

TUV File No.： R50139459

CQC File No.： CQC02001002127、CQC16002154154

Contact Data

Type	SPA
Rated load (Resistive load)	10A 250VAC
Max. switching current	16A
Max. switching voltage	277VAC
Max. switching power	4432VA
Min. switching load	6V 1A

Characteristic

Contact material	Silver alloy	
Contact resistance	100mΩ Max. (at 1A 6VDC)	
Operate time (at rated coil voltage)	15ms Max. (No diode)	
Release time	8ms Max. (No diode)	
Insulation resistance	Min. 1,000MΩ (at 500VDC)	
Dielectric strength	Between open contacts： 1,000VAC , 50/60Hz for 1min.	
	Between coil and contact：2,500VAC , 50/60Hz for 1min.	
Vibration resistance	Destructive	10～55Hz , at double amplitude of 1.5 mm
	Functional	10～55Hz , at double amplitude of 1.5 mm
Shock resistance	Destructive	100G Min.
	Functional	10G Min.
Endurance	Mechanical Endurance (10,800 ops./h)	10,000,000 次 10,000,000 (at room temperature)
	Electrical Endurance (360 ops./h)	100,000 次 100,000 (at room temperature)
Ambient temperature	-40℃～+85℃ (No condensation) For ambient temperature is 105℃, please contact Sanyou	
Weight	Approx.8.6g	

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	66.67	45	130% of nominal voltage	75% of nominal voltage	5% of nominal voltage	Approx.0.2W
5	40	125				
6	33.33	180				
9	22.22	405				
12	16.67	720				
18	11.11	1620				
24	8.33	2880				

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	TUV	UL/CUL
File No.	CQC02001002127 CQC16002154154	R50139459	E179745
Approved ratings	10A 250VAC 16A 125/250/277VAC	10A 250VAC 10A 30VAC 16A 125/250/277VAC	15A 125VAC, Resistive 10A 250VAC, Resistive 10A 24VDC, Resistive 5A 125VAC, General use 16A 125/250/277VAC, Resistive

(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

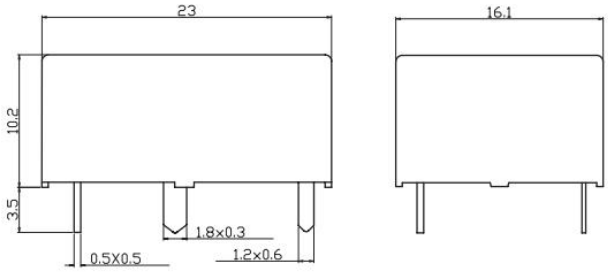
SPA	-S	-1	12	D	M	2	-F	-XX	
									Special Parameter：Nil-Standard type ; Letters or Numbers-Special requirements
									Insulation System : Nil-Standard，B-Class B，F-Class F
									Contact Material：2-$AgSnO_2$，3-AgNi & $AgSnO_2$
									Contact Arrangement : M-Form A
									Coil Power：D-0.2W
									Rated Coil Voltage (VDC)：03，05，06，09，12，18，24
									Number of Poles：1-1 Pole
									Protective Construction：S- Flux-proofed，SH-Sealed type washable
									Type：SPA

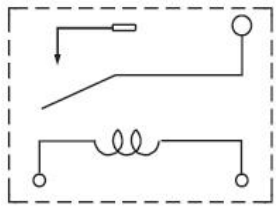
(1) Plastic sealing type can not be used in polluted environment (containing H_2S, $S0_2$, $N0_2$, dust and other pollutants)

(2) After the plastic seal product is loaded into PCB welding, the whole cleaning or surface treatment can not be carried out.

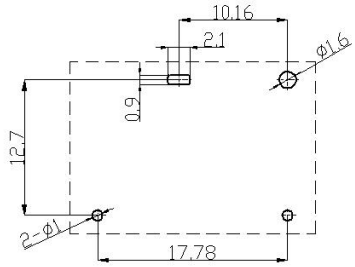
(3) Special requirements of customers (XX) shall be evaluated by our company and marked by characteristic symbols.

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

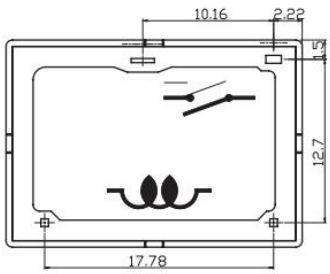




Wiring Diagram (bottom view)



P.C.B. Layout (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. view)

Typical Applications

●Home appliances, office equipment, instrument , etc.

Disclaimer: The specification is for reference only. Specifications are subject to change without prior notice.
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 technical services. However it is the user's responsibility to determi ne which product should be used.