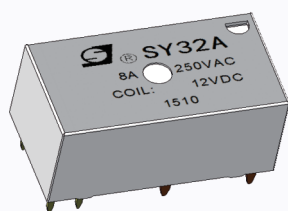


# Magnetic Latching Relay

## SY32A-Series



### Features

- Safety product, small size, fit to crowded assemble .
- Low coil power , high load capacity switching ability.
- 2.5KV dielectric strength between coil and contact .
- Have three forms of 1-NO, 1-NO+1-NC, and 2-NO.

### Contact Capacity

Model	1A	2A	1A+1B
Nominal switching capacity (res. load)	8A 250VAC(cosΦ=1.0) 5A 250VAC(cosΦ=0.4) 5A 30VDC	5A 250VAC(cosΦ=1.0) 3A 250VAC(cosΦ=0.4) 5A 30VDC	
Max. switching current	8A	5A	
Max. switching voltage	250VAC/30VDC	250VAC/30VDC	
Max. switching power	2,000VA/240W	1,250VA/150W	

### Characteristic Data

Contact material	Silver alloy		
Initial contact resistance	100mΩ Max.		
Operate time	10msec. Max.		
Release time	10msec. Max.		
Insulation resistance	1,000MΩ Min. ( DC500V )		
Dielectric strength	Between coil & contacts	AC2,500V , 50/60Hz 1min	
	Between open contacts	AC1,000V , 50/60Hz 1min	
	Between contact sets	AC2,000V , 50/60Hz 1min	
Surge voltage (between coil & contacts)	5kV ( 1.2x50μS )		
Vibration resistance	Destructive	10 ~ 55Hz , 3.5 mm DA	
	Functional	10 ~ 55Hz , 2 mm DA	
Shock resistance	Destructive	100G Min.	
	Functional	10G Min.	
Endurance(operations)	Mechanical (at 3,600 ops./h)		100,000,000 cycles
	Electrical	(at 360 ops./h)	100,000 cycles(5A 250VAC )
		(at 360 ops./h)	50,000 cycles(8A 250VAC )
Ambient temperature	-40°C ~ +85°C(No condensation)		
Weight	Apro. 4.5g		

### Coil Data(at 20 °C)

Standard type

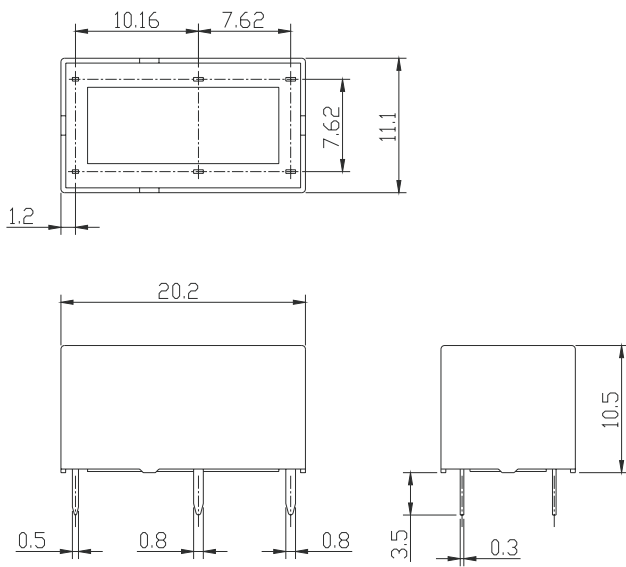
Nominal voltage (VDC)	Coil resistance ± 10% (Ω)			Operate voltage (Max.)	Release voltage (Max.)	Pulse duration (ms)	Nominal operating power
	Single coil	Dual coil					
5	167	83.5	83.5	80 % of nominal voltage	80 % of nominal voltage	50 min.	Single/Dual: 0.15W/0.30W
6	240	120	120				
9	540	270	270				
12	960	480	480				
24	3,840	1,920	1,920				

Ordering Information

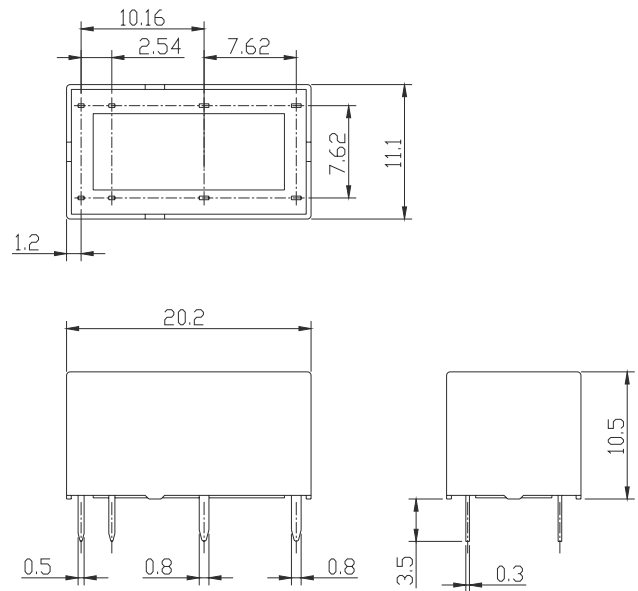
Nomenclature							
SY32A	-1	12	D	M	2	R	-XX
Special Parameter : Nil-Standard type,XX-Customized Requirement							
Polarity : R-Reverse polarity, Nil-Positive polarity							
Coil Type:1-Single coil,2-Dual coils							
Contact Form : M-Form A/B, B-2Form A/B, C-FromA+FormB							
Coil Power : Standard type -Single/Dual:0.15W/0.30W							
Coil Voltage (VDC) : 05, 06, 09, 12, 24							
Number of Poles : 1-1 Pole,2-2Pole							
Type Designation : SY32A							

Outline Dimensions (Unit:mm)

Dual coils



Single coil



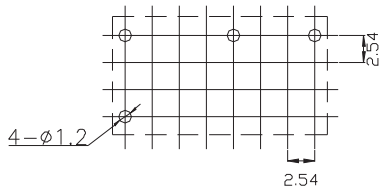
Unless otherwise specified :  
 If dimension < 1mm, tolerance : ±0.2mm;  
 If dimension 1~5mm, tolerance : ±0.3mm;  
 If dimension > 5mm, tolerance : ±0.4mm.  
 Note : 1. Extended terminal dimension is dimension before soldering.  
 2. Tolerance of mounting holes : ±0.1mm.

Typical Applications

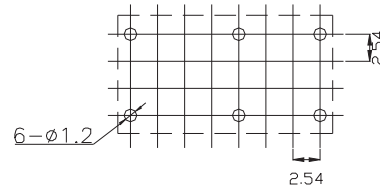
- remote control
- electric control

PCB Layout(Bottom View)

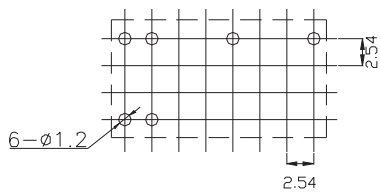
Single coil 1a



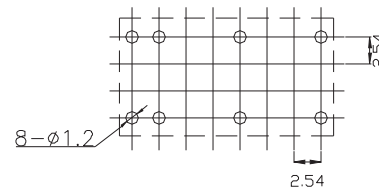
Single coil 1a+1b、2a



Dual coils 1a

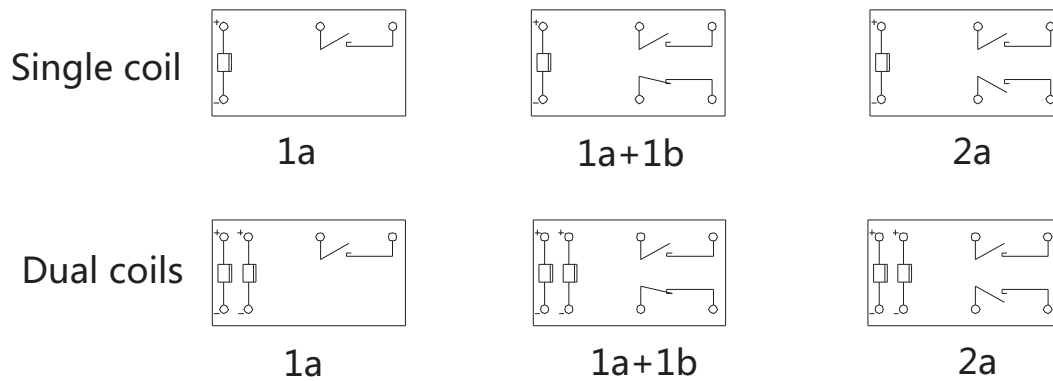


Dual coils 1a+1b、2a

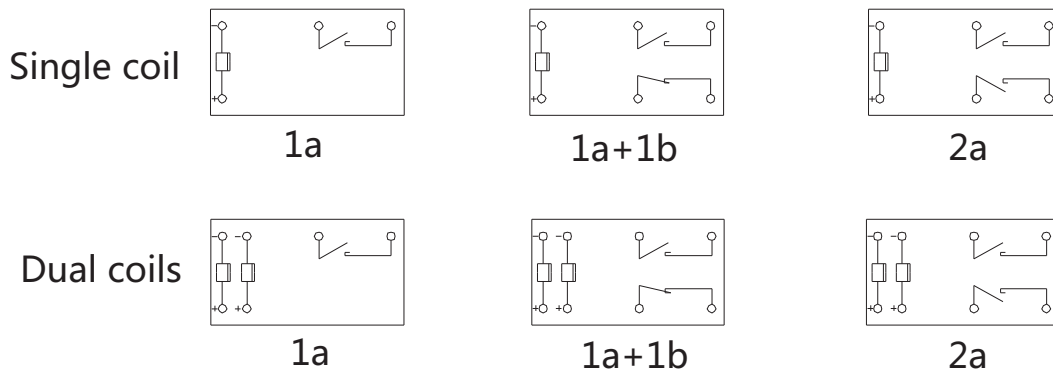


Wiring Diagram(Bottom View)

Positive polarity



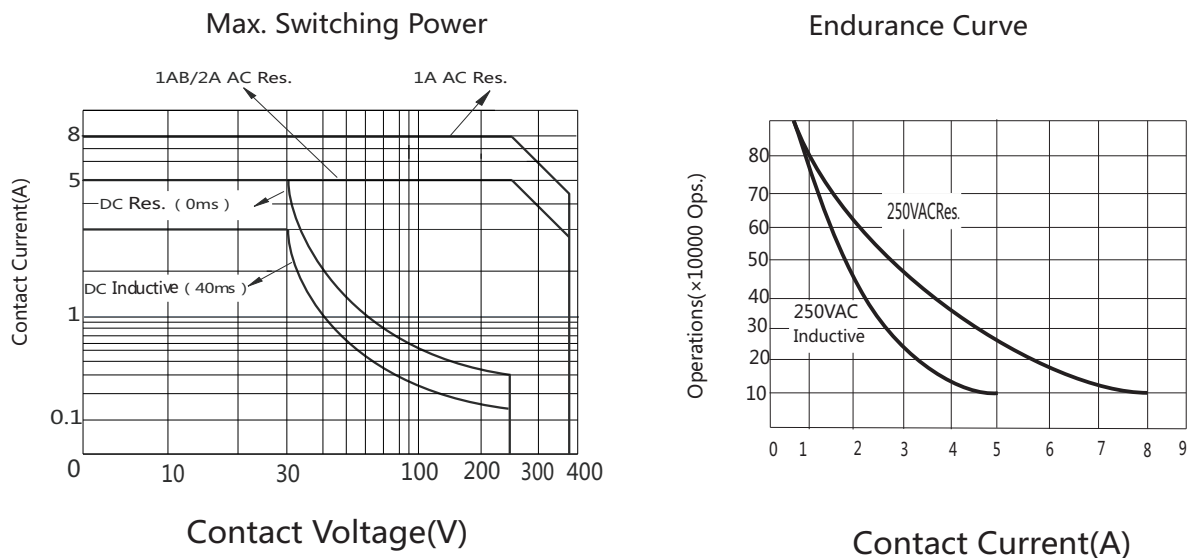
Reverse polarity



## Typical Applications

- Communication device
- Office device
- Computer peripherals
- Security warning system
- Medical system

## Characteristic Curves



## Announcements

- 1 The magnetic latching relay is to be supplied with contacts close(Operate) or contacts open(Release),but the contact status may got changed due to unexpected shock or vibration during delivering or mounting.You can reset the contact status according to your requirement.
- 2 In order to make sure the contacts are completely closed or opened,energized voltage to Operate or Release coil should be the nominal operate/release voltage,impulse width should be 5 times more than specified operate/release time in the specification but less than 1 minute.Do not apply power to Operate and Release coils at the same time.

## Disclaimer:

This datasheet is just for customers' reference.The newest specification you can get from the website of sanyou relays. We could not evaluate all the performances and parameters for all possible applications,so the user should choose the suitable relay for their own application or require us to provide necessary help. If there is any query, please contact Sanyou for the technical service, however, it is the user's responsibility to determine which relay should be used.