



DB LECTRO

COMPOSANTS ÉLECTRONIQUES

ELECTRONIC COMPONENTS



20×5×12.8

N P A



on Pending

Features

- Small size, light weight.
- Low coil power consumption 0.12W.
- PC board mounting, SIL terminal
- Suitable for household electrical appliance, automation system, electronic equipment, instrument, meter, telecommunication facilities and remote control facilities.

Ordering Information

NPA A S 5 DC12V
1 2 3 4 5

1 Part number: NPA ; NPA₂
2 Contact arrangement: A:1A

4 Contact current: 3:3A; 5:5A
5 Coil rated Voltage(V): DC:3,4,5,5,6,12,18,24

Contact Data

Contact Arrangement	1A (SPSTNO)		
Contact Material	Silver Alloy (Gold clad)		
Contact Rating (resistive)	3A,5A/30VDC,250VAC ;		
Max. Switching Power	150W	1250VAC	min Load:0.1mA/0.1VDC (reference value)
Max. Switching Voltage	110VDC	250VAC	Max. Switching Current:5A
Contact Resistance & Voltage drop	≤30mΩ (at 1A/6V)		Item 3.12 of IEC255-7
Operation life	Electrical	1 × 10 ⁵	Item 3.30 of IEC255-7
	Mechanical	2 × 10 ⁷	Item 3.31 of IEC255-7

CAUTION:

Relays previously tested or used above 10mA resistive at 6VDC maximum or peak AC open circuit are not recommended for subsequent use in low level applications.

Coil Parameter

Dash numbers	Coil voltage VDC		Rated current mA	Coil resistance Ω±10%	Pickup voltage VDC(max) (70%of rated voltage)	release voltage VDC(min) (5% of rated voltage)	Coil power Consumption W	Operate Time ms	Release Time ms
	Rated	Max.							
NPA-005	5	6	24	208	3.5	0.25	0.12	≤6	≤3
NPA-006	6	7.2	20	300	4.2	0.3			
NPA-009	9	10.8	13.3	675	6.3	0.45			
NPA-012	12	14.4	10	1200	8.4	0.6			
NPA-018	18	21.6	6.7	2700	12.6	0.9			
NPA-024	24	28.8	5	3200	16.8	1.2	0.18	≤6	≤3

CAUTION: 1.The use of any coil voltage less than the rated coil voltage will compromise the operation of the relay.
2.Pickup and release voltage are for test purposes only and are not to be used as design criteria.

Operation condition		
Insulation Resistance	1000M Ω min (at 500VDC)	Item 7 of IEC255-5
Dielectric Strength		
Between contacts	50Hz 1000V	Item 6 of IEC255-5
Between contact and coil	50Hz 2000V Surge voltage:4kV	Item 6 and 8 of IEC255-5
Shock resistance	Functional : 147m/s ² 11ms Survival: 980m/s ² 6ms	IEC68-2-27 Test Ea
Vibration resistance	10~55Hz Functional double amplitude 2.5mm Survival: double amplitude 3.5mm	IEC68-2-6 Test Fc
Terminals strength	5N	IEC68-2-21 Test Ua1
Solderability	235 $^{\circ}$ C $\pm$ 2 $^{\circ}$ C 3 $\pm$ 0.5s	IEC68-2-20 Test Ta method 1
Ambient Temperature	-40~70 $^{\circ}$ C	
Relative Humidity	5%~85% (at 40 $^{\circ}$ C)	IEC68-2-3Test Ca
Mass	3g	
Qualification inspection:		
Perform the qualification test as specified in the table IV of IEC255-19-1 and minimum sample size 24.		

Dimensions (Unit: mm)

Technical drawing of the NPA component. It includes three views: a top view, a side view, and a mounting (bottom) view. The top view shows a rectangular component with a width of 20 mm and a height of 3.5 mm. The mounting view shows a grid with dimensions 2.54 mm and 2.54 mm, and two mounting holes with diameters 2-ø1.1 mm and 2-ø1.2 mm. The side view shows a height of 5 mm and a width of 12.5 mm.

Technical drawing of the NPA2 component. It includes three views: a top view, a side view, and a mounting (bottom) view. The top view shows a rectangular component with a width of 20 mm and a height of 3.5 mm. The mounting view shows a grid with dimensions 2.54 mm and 2.54 mm, and two mounting holes with diameters 2-ø1.1 mm and 2-ø1.2 mm. The side view shows a height of 5 mm and a width of 12.5 mm.

Dimensions

Wiring diagram showing two components connected in series. The first component is a square with two terminals, and the second component is a rectangle with two terminals.

Wiring diagram
(Bottom views)

mm	inch
0.25	0.010
0.3	0.012
0.5	0.020
0.8	0.031
1.1	0.046
1.2	0.047
1.3	0.051
2.54	0.100
3.5	0.138
5.0	0.197
5.08	0.200
10.16	0.300
12.5	0.504
20	0.787

Mounting (Bottom views)

NOTES 1).Dimensions are in millimeter.
2).Inch equivalents are given for general information only.