



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 ; NPA<sub>2</sub>  
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 <sup>5</sup><br>Mechanical 2 × 10 <sup>7</sup> | Item 3.30 of IEC255-7<br>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.

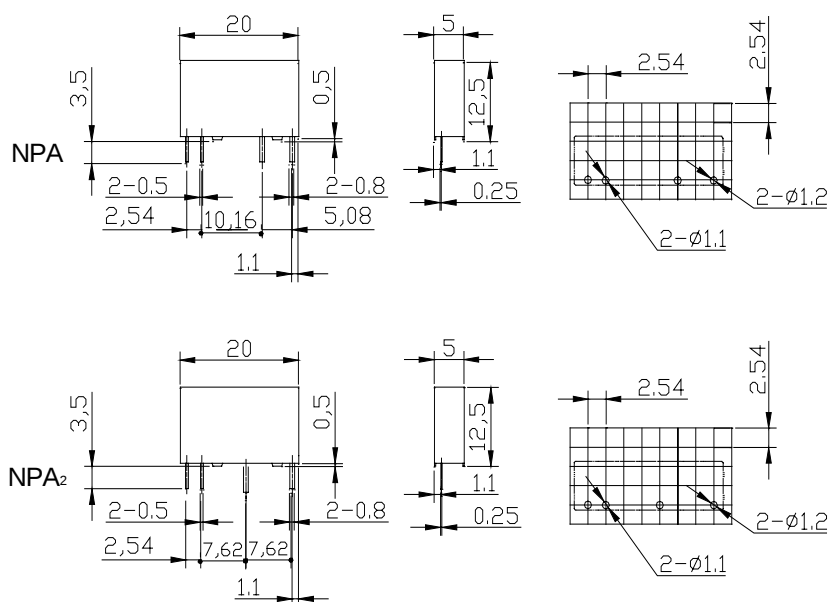
### Operation condition

|                          |                                                                               |                             |
|--------------------------|-------------------------------------------------------------------------------|-----------------------------|
| Insulation Resistance    | 1000M $\Omega$ 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 <sup>2</sup> 11ms<br>Survival: 980m/s <sup>2</sup> 6ms    | IEC68-2-27 Test Ea          |
| Vibration resistance     | 10~55Hz Functional double amplitude 2.5mm<br>Survival: double amplitude 3.5mm | IEC68-2-6 Test Fc           |
| Terminals strength       | 5N                                                                            | IEC68-2-21 Test Ua1         |
| Solderability            | 235℃ $\pm$ 2℃ 3 $\pm$ 0.5s                                                    | IEC68-2-20 Test Ta method 1 |
| Ambient Temperature      | -40~70℃                                                                       |                             |
| Relative Humidity        | 5%~85% (at 40℃)                                                               | 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)



### Mounting (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 |

## Dimensions



Wiring diagram  
(Bottom views)

NOTES 1).Dimensions are in millimeter.

2).Inch equivalents are given for general information only.