

## NRP SERIES



Industrial & Electrical Components

## Miniature P.C.B Relay

Part No.

NRP-05



- Ultra-small type with dimensions.
- High sensitivity: 200mW coil power
- Sealed type available

### CONTACT

|                                   |                                                                                                                                     |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Arrangement                       | 1A, 1C                                                                                                                              |
| Contact Material                  | Silver Alloy                                                                                                                        |
| Contact Resistive<br>(At 6VDC 1A) | $\leq 100 \text{ m}\Omega$                                                                                                          |
| Rating                            | <b>A:</b> 5A 250VAC / 30VDC(0.45W)<br><b>AG:</b> 10A 250VAC / 30VDC(0.45W)                                                          |
| Resistive load ( $\cos\phi=1$ )   | <b>A:</b> 3A 250VAC / 30VDC(0.2W)<br><b>AG:</b> 8A 250VAC / 30VDC(0.2W)<br><b>C:</b> NO: 5A 250VAC / 30VDC<br>NC: 3A 250VAC / 30VDC |
| Max. Switching Voltage            | 250VAC 30VDC                                                                                                                        |
| Max. Switching Current            | 10A                                                                                                                                 |
| Max. Switching Power              | 2500VA / 300W                                                                                                                       |
| Expected life                     |                                                                                                                                     |
| Mechanical                        | $1 \times 10^6 \text{ Min}$                                                                                                         |
| Electrical                        | $1 \times 10^5 \text{ Min.}$                                                                                                        |

### CHARACTERISTICS

|                           |                                   |
|---------------------------|-----------------------------------|
| Operate Time              | 8ms. Max.                         |
| Release Time              | 5ms. Max.                         |
| Initial breakdown voltage |                                   |
| Between Coil & Contact    | 2500VAC for 1 min.                |
| Between Open Contacts     | 1000VAC for 1 min.                |
| Insulation Resistance     | Min.100M $\Omega$ (500 VDC)       |
| Shock:                    | Endurance 98 m/s <sup>2</sup>     |
|                           | Damage 980 m/s <sup>2</sup>       |
| Vibration                 | Endurance 10 to 55 Hz ,1.5mm D.A. |
|                           | Damage 10 to 55 Hz ,1.5mm D.A.    |
| Humidity                  | 35%~95%RH                         |
| Ambient temperature       | -40 to +70°C                      |
| Unit weight               | $\leq 6\text{g}$                  |

### ORDERING INFORMATION

e.g

**NRP05 - C -12D - H - G**

① ② ③ ④ ⑤

① Part N Miniature p.c.b Relay

② Contact Form:

C=1C/O; A = N/O

③ Coil Voltage: 12D= 12Vdc

④ Nil= 0.45W coil power

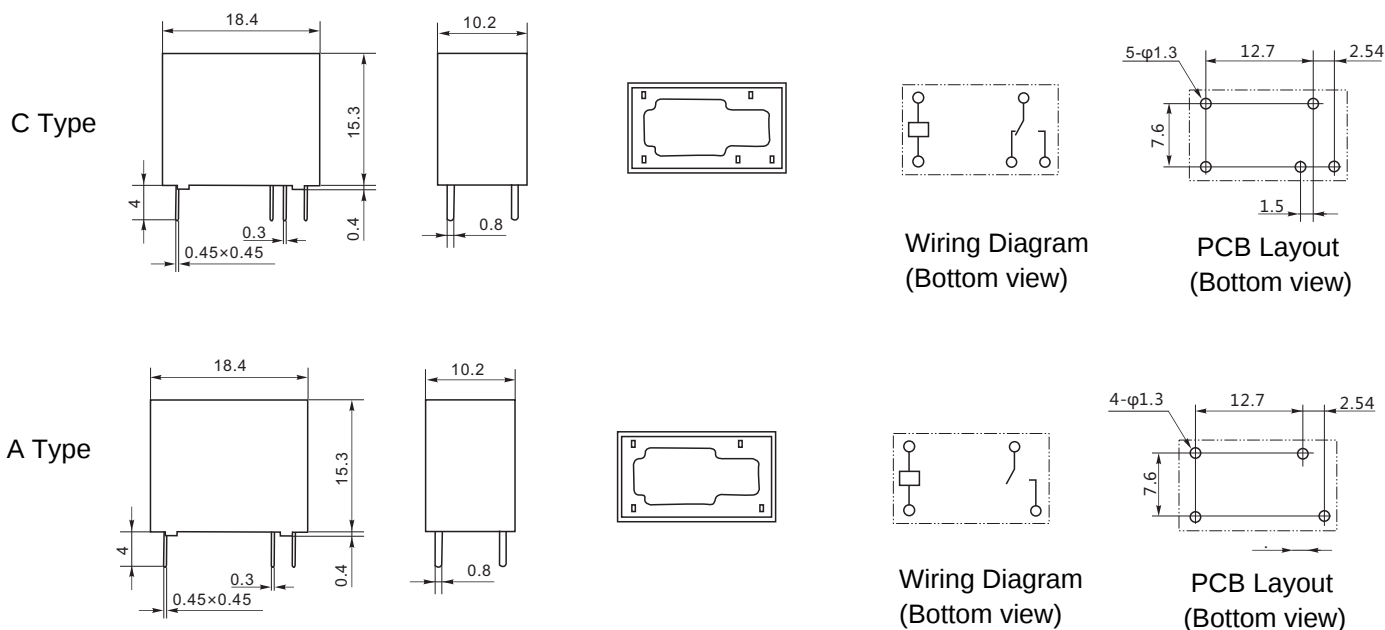
H = 0.20W coil power, Sensitive  
(Only for 1 Form A)

⑤ G = 10A contact capacity

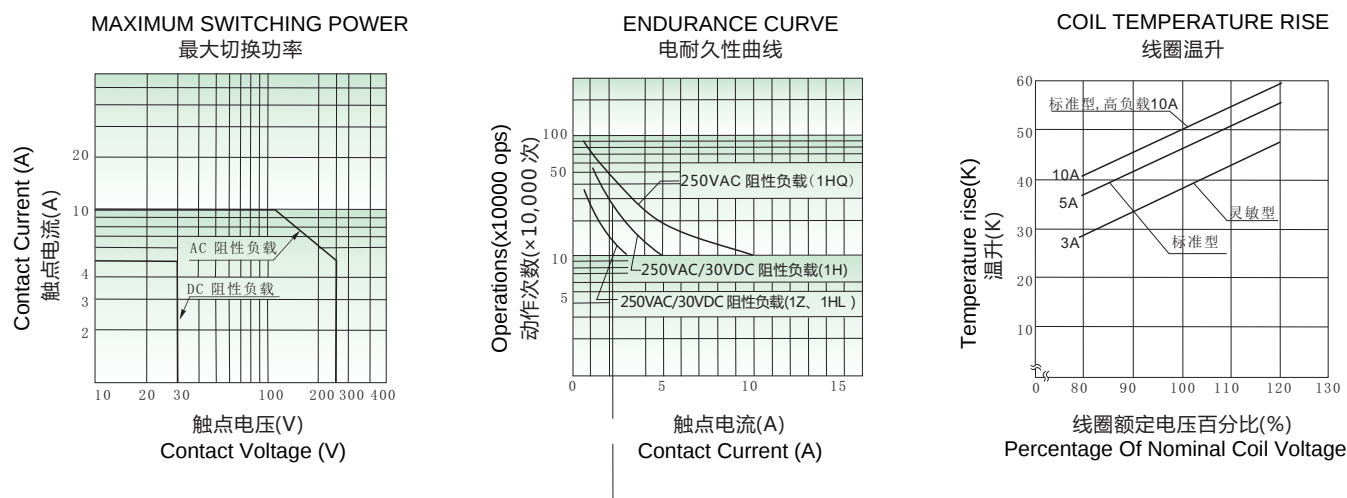
## COIL DATA (at 20°C)

| Nominal Voltage (VDC) | Pick-up Voltage VDC(Max) | Drop-out Voltage VDC(Min) | Coil Resistance ( $\Omega$ ) $\pm 10\%$ |                   | Nominal operating Power | Max.Allowable Voltage                                                     |
|-----------------------|--------------------------|---------------------------|-----------------------------------------|-------------------|-------------------------|---------------------------------------------------------------------------|
|                       |                          |                           | High Sensitive 0.20(1A)                 | Standard 0.45W(W) |                         |                                                                           |
| 3                     | 2.25                     | 0.15                      | 45                                      | 20                | 0.20 / 0.45             | 0.45W: 130% of nominal Voltage<br>-----<br>0.20W: 150% of nominal Voltage |
| 5                     | 3.75                     | 0.25                      | 125                                     | 55                |                         |                                                                           |
| 6                     | 4.50                     | 0.30                      | 180                                     | 80                |                         |                                                                           |
| 9                     | 6.75                     | 0.45                      | 400                                     | 180               |                         |                                                                           |
| 12                    | 9.00                     | 0.60                      | 720                                     | 320               |                         |                                                                           |
| 18                    | 13.50                    | 0.90                      | 1620                                    | 720               |                         |                                                                           |
| 24                    | 18.00                    | 1.20                      | 2880                                    | 1280              |                         |                                                                           |

## DIMENSIONS &amp; DIAGRAM Unit: mm



## Reference Data 性能曲线图



Disclaimer:

The specifications in this datasheet are for reference only and subject to change without notice. No chance for us to evaluate all the specifications and technical parameters for each possible application. The users will take the responsibility to choose the correct products for their own applications. While if any technical support is needed, please contact NCR team for assistance.