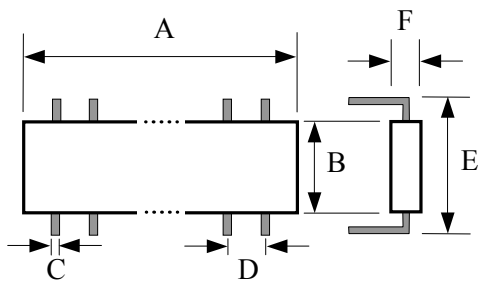




Precision Resistors

UPRND Metal Film Series - Precision Resistors Network / 精密网络电阻



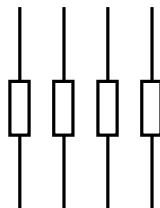
- Precision Resistors Network Low TCR UPRND Series meets ROHS requirements.
- UPRNS: Serial Dip Type; UPRND: Parallel Dip Type
- UPRNS/UPRND Series are relatively consistent with Tolerance of Nominal Resistance and Temperature Coefficient and are good for application's Precision Divider, Bypass, etc...
- UPRNS/UPRND Series are assembled by EE/RE 1/10 series to form a stable, high precision, and low temperature coefficient Precision Network Resistor. Characteristic of UPRNS/UPRND Series meet.

| | | | |
|-----------------------|------|------|------|
| UPRND A(mm) ± 0.5 | 5.08 | 11.8 | 30.3 |
| Number of Resistors # | 2 | 4 | 11 |

| | | |
|---|---|---|
| Dimensions(mm) | A | 5.08 ± 0.5 ~ 30.3 ± 0.5 |
| | B | 9.0 ± 0.5 |
| | C | 0.6 ± 0.05 |
| | D | 2.54 ± 0.05 |
| | E | 11.5 ± 0.5 |
| | F | 3.0 ± 0.5 |
| Rated Wattage of one element unit at 70°C (W) | | 0.1 |
| Maximum Working Voltage (V) | | 200 |
| Nominal Resistance Range of component element unit (Ω) | | 10 ~ 1M |
| Absolute Tolerance (%) | | A2(± 0.02), A5(± 0.05), B(± 0.1), C(± 0.25), D(± 0.5), F(± 1.0) |
| Relative Tolerance (%) | | T(± 0.01), A2(± 0.02), A5(± 0.05), B(± 0.1) |
| Absolute Temperature Coefficient (ppm/°C) | | C7(± 5), C6(± 10), C5(± 15), C3(± 25), C2(± 50) |
| Relative Temperature Coefficient (ppm/°C) | | C10(± 2), C9(± 3), C7(± 5), C6(± 10), C5(± 15) |
| Working Temperature (°C) | | -10 ~ +70 |

- Remark
- Absolute value means all factors (Tolerance and Temperature Coefficient) of component element units of Network Resistor are independent.
 - Relative value means the maximum difference factor among component element units of Network Resistor.

► Examples for Construction - Precision Resistors Network

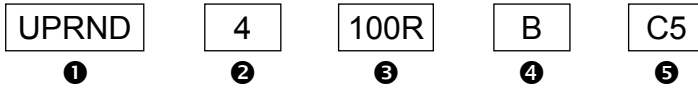


- There are no standard nominal resistance for UPRNS/UPRND Series.
- Customer can designate or specify the number of component elements of Network Resistor according with this specification of UPRNS/UPRND Series to meet your own needs.
- It can be required to Token's representatives if customer's requirement beyonds the range of Token's specifications.



Precision Resistors

► How to Order



① Product type

② Number of Resistors

③ Resistance Value (Ω): 10 ~ 1M

④ Resistance Tolerance (%)

| | Code | Resistance Tolerance (%) |
|----------|------|--------------------------|
| Absolute | A2 | ± 0.02 |
| | A5 | ± 0.05 |
| | B | ± 0.1 |
| | C | ± 0.25 |
| | D | ± 0.5 |
| | F | ± 1.0 |
| Relative | T | ± 0.01 |
| | A2 | ± 0.02 |
| | A5 | ± 0.05 |
| | B | ± 0.1 |

⑤ Temperature Coefficient (ppm/ $^{\circ}$ C)

| | Code | Temperature Coefficient (ppm/ $^{\circ}$ C) |
|----------|------|---|
| Absolute | C7 | ± 5 |
| | C6 | ± 10 |
| | C5 | ± 15 |
| | C3 | ± 25 |
| | C2 | ± 50 |
| Relative | C10 | ± 2 |
| | C9 | ± 3 |
| | C7 | ± 5 |
| | C6 | ± 10 |
| | C5 | ± 15 |