

Extra Precision Network Resistors

Ultra Precision Networks Take Accuracy Pole Position

► Preview

Following market demands for components to deliver ultra precision applications in often very confined spaces, design engineers can now benefit from new technologies capable of Temperature Coefficient C10 (± 2 ppm/ $^{\circ}$ C), compact body size UPSC Networks.

Constructed with Token EE/RE 1/10 series to form a stable, high precision, and low temperature coefficient network resistors, the networks are protected from moisture by a proprietary passivation material.

Customer can specify Tolerance and Temperature Coefficient range designed to satisfy challenging and specific technical requirements. The resistance and TCR range makes these resistor networks ideal for a number of applications, including test and measurement devices, commercial avionics and medical equipment or devices.

The thin-film resistor networks also can be designed with custom schematics to meet individual customer specifications. The networks provide excellent resistor precision and accuracy with resistor tolerances to $\pm 0.01\%$. They have TCR values to ± 2 ppm/ $^{\circ}$ C, providing superior performance over the military temperature range.

UPSC Series equate IRC, EBG Precision Devices with more competitive price and fast delivery. For non-standard technical requirements and special applications, please contact our manufacturer or sales representatives.

Applications :

- Precision Bypass.
- Simulation Equipment.
- Test and Measurement.
- Medical, Bridge Circuitry.
- Precision Amplifiers, Divider.
- High Precision Instrumentation.
- Audio (High End Stereo Equipment).
- Commercial Avionics, Data Convertors.

Features :

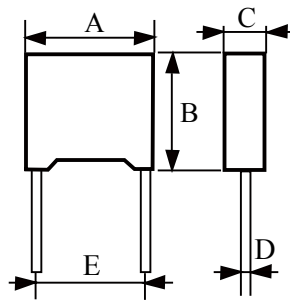
- Precision tolerance tight to T($\pm 0.01\%$).
- Superior TCR narrowed to C10 (± 2 ppm/ $^{\circ}$ C).
- Metal film precision networks, Lead (Pb)-free and RoHS compliant.
- Any value available within resistance range, excellent stability and reliability.

UPSC Versus UPR Series :

- UPSC Series have the advantage of compact body size.
- The electric characteristics of UPR and UPSC are the same.
- UPR Series have the advantage of wider resistance range 10 Ω ~5M Ω .



Dimensions & Technical Characteristics

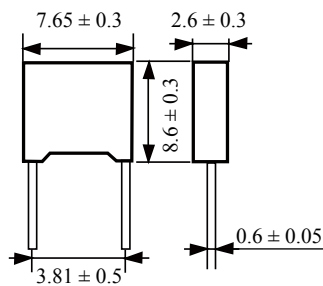


| | | | |
|--|---|--|--|
| Dimensions (mm) | A | 7.65± 0.3 | |
| | B | 8.6± 0.3 | |
| | C | 2.6± 0.3 | |
| | D | 0.6 ± 0.05 | |
| | E | 3.81± 0.5 | |
| Working Temperature (°C) | | -10 ~ +70 | |
| Rated Wattage at 70°C (W) | | 0.25 | |
| Maximum Working Voltage (V) | | 250 | |
| Nominal Resistance Range (Ω) | | 40 ~ 5M | 1K ~ 1M |
| Nominal Resistance Tolerance (%) | | A2(±0.02), A5(±0.05), B(±0.1) | T(±0.01), A2(±0.02), A5(±0.05),B(±0.1) |
| Temperature Coefficient (ppm/°C) [TCR: +25°C ~ +85°C] | | C9(±3), C7(±5), C6(±10), C5(±15), C3(±25) | C10(±2), C9(±3), C7(±5),C6(±10), C5(±15), C3(±25) |

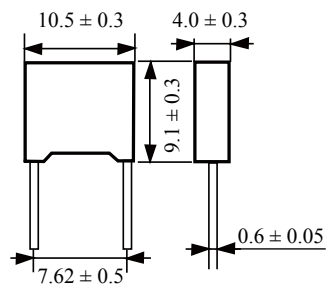
Remark : 1. Customer can specify Tolerance and Temperature Coefficient range to meet your own needs.

2. can be required to Token's representatives if customer's requirement beyonds the range of Token's specifications.

UPSC Versus UPR Series



Extra Precision Network Resistors
(UPSC) Dimensions (Unit: mm)



Extra Precision Network Resistor
(UPR) Dimensions (Unit: mm)

| Nominal Resistance Range (Ω) | | Nominal Resistance Tolerance(%) | Temperature Coefficient (ppm/°C) [TCR: +25°C ~ +85°C] |
|------------------------------|-------|---|--|
| UPSC | UPR | | |
| 40~5M | 10~5M | A2 ± 0.02 A5 ± 0.05 B ± 0.1 | C9 ± 3ppm/°C C7 ± 5ppm/°C C6 ± 10ppm/°C C5 ± 15ppm/°C C3 ± 25ppm/°C |
| 1K~1M | 1K~1M | T ± 0.01 A2 ± 0.02 A5 ± 0.05 B ± 0.1 | C10 ± 2ppm/°C C9 ± 3ppm/°C C7 ± 5ppm/°C C6 ± 10ppm/°C C5 ± 15ppm/°C C3 ± 25ppm/°C |

▶ (UPSC) Resistance Value 40Ω ~ 5MΩ How to Order

UPSC

❶

530R

❷

A5

❸

C6

❹

P

❺

❶ Part Number: UPSC

❷ Resistance Value (Ω):

| Code | Resistance Value (Ω) |
|------|----------------------|
| 53R | 53Ω |
| 530R | 530Ω |
| 5K3 | 5.3KΩ |
| 53K | 53KΩ |
| 530K | 530KΩ |

❸ Resistance Tolerance (%)

| Code | Resistance Tolerance (%) |
|------|--------------------------|
| A2 | ±0.02% |
| A5 | ±0.05% |
| B | ±0.10 |

❹ Temperature Coefficient (ppm/°C)

| Code | Temperature Coefficient (ppm/°C) |
|------|----------------------------------|
| C3 | ±25ppm/°C |
| C5 | ±15ppm/°C |
| C6 | ±10ppm/°C |
| C7 | ±5ppm/°C |
| C9 | ±3ppm/°C |

❺ Package: P (Bulk)

▶ (UPSC) Resistance Value 1KΩ ~ 1MΩ How to Order

UPSC

❶

10K

❷

T

❸

C6

❹

P

❺

❶ Part Number: UPSC

❷ Resistance Value (Ω):

| Code | Resistance Value (Ω) |
|------|----------------------|
| 1K | 1KΩ |
| 10K | 10KΩ |
| 100K | 100KΩ |
| 1M | 1MΩ |

❸ Resistance Tolerance (%)

| Code | Resistance Tolerance (%) |
|------|--------------------------|
| T | ±0.01% |
| A2 | ±0.02% |
| A5 | ±0.05% |
| B | ±0.10% |

❹ Temperature Coefficient (ppm/°C)

| Code | Temperature Coefficient (ppm/°C) |
|------|----------------------------------|
| C3 | ±25ppm/°C |
| C5 | ±15ppm/°C |
| C6 | ±10ppm/°C |
| C7 | ±5ppm/°C |
| C9 | ±3ppm/°C |
| C10 | ±2ppm/°C |

❺ Package: P (Bulk)

Back to 1st Page - Precision Network Resistors (UPSC)