

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 :

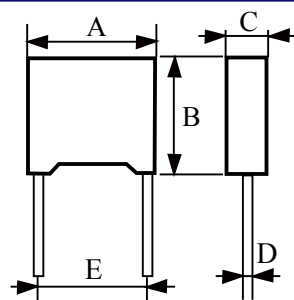
- Precision tolerance tight to T($\pm 0.01\%$).
- Superior TCR narrowed to C10 (± 2 ppm/ $^{\circ}$ C).
- Metal film precision networks, Lead (Pb)-free and RoHS compliant.
- Any value available within resistance range, excellent stability and reliability.

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

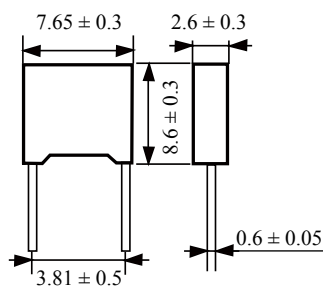


Dimensions (mm)	A	7.65± 0.3	
	B	8.6± 0.3	
	C	2.6± 0.3	
	D	0.6 ± 0.05	
	E	3.81± 0.5	
Working Temperature (°C)		-10 ~ +70	
Rated Wattage at 70°C (W)		0.25	
Maximum Working Voltage (V)		250	
Nominal Resistance Range (Ω)		40 ~ 5M	1K ~ 1M
Nominal Resistance Tolerance (%)		A2(±0.02), A5(±0.05), B(±0.1)	T(±0.01), 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)

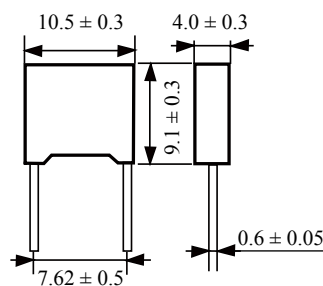
Remark : 1. Customer can specify Tolerance and Temperature Coefficient range to meet your own needs.

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)

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