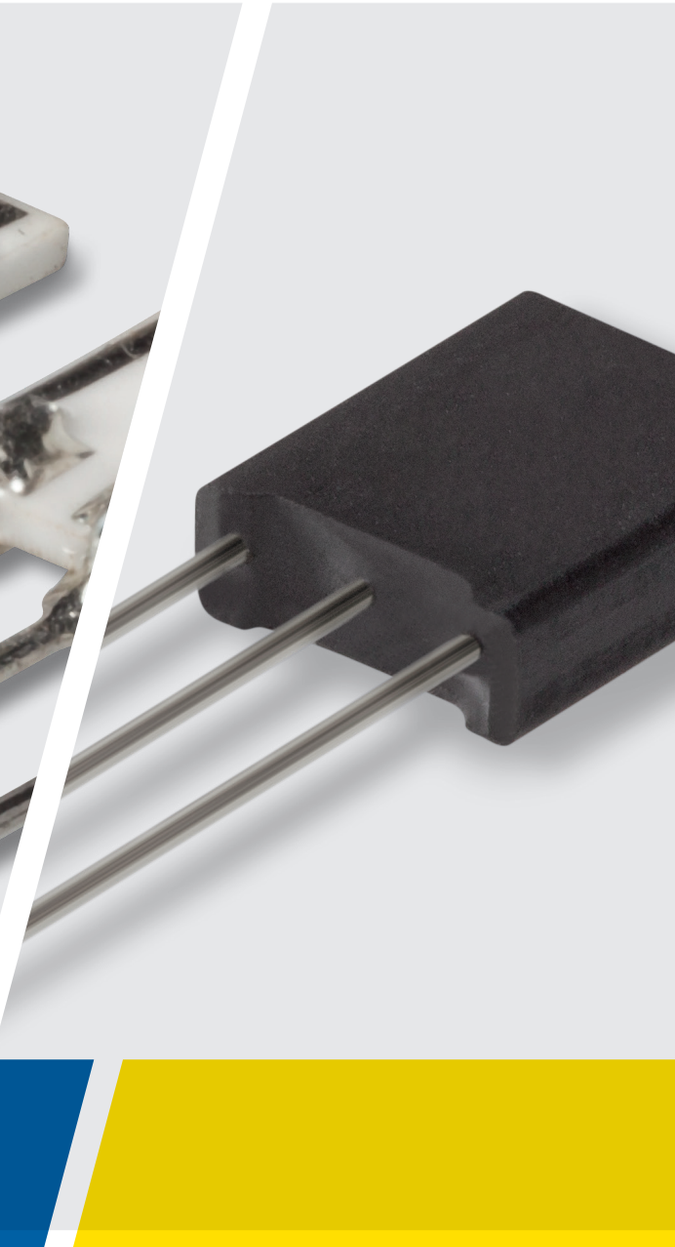
MEGATRON

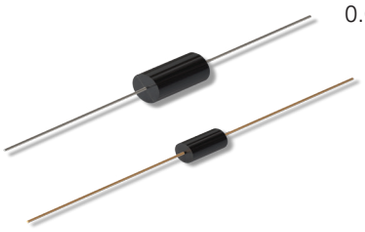
Precision for your Design



PRECISION RESISTORS

SMD, Wirewound / Power Resistors,
Voltage Divider and Thermistors

Precision Resistors



ASTRO2 Precision Resistor
Resistor with extremely wide resistance range of 0.01Ω..6MΩ, tolerance up to ±0.005%

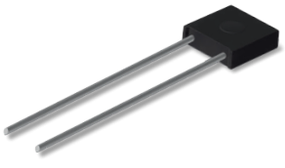
- Very long-term stable ±100 ppm/year
- Resistance range from 0,01Ω..6MΩ
- Exact values up to ±0,005% resistance tolerance
- On request balco or platinum connection for higher TC values
- On request very high or low TC configurations from -20 ppm/°C to +600 ppm/°C
- On request special lead wire bending

- Technology: Wirewound
- Design: Axial leaded
- Power rating: ≤1,5W
- Resistance range: 0,01Ω..6MΩ
- Resistance tolerance: ±0,005%..±0,1%
- Temperature coefficient: ±10..±30 ppm/°C
- Max. working temperature: +145°C
- Min. working temperature: -55°C

ASTRO5 Precision Resistor
Radial leaded resistor with wide resistance range of 0.01Ω..1MΩ and tolerance up to ±0.005%

- Very long-term stable ±100 ppm/year
- Resistance range from 0,01Ω..1MΩ
- Exact values up to ±0,005% resistance tolerance
- On request balco or platinum connection for higher TC values
- On request very high or low TC configurations from -20 ppm/°C to +600 ppm/°C

- Technology: Wirewound
- Design: Radial leaded
- Power rating: ≤0,5W
- Resistance range: 0,01Ω..1MΩ
- Resistance tolerance: ±0,005%..±0,1%
- Temperature coefficient: ±10..±30 ppm/°C
- Max. working temperature: +145°C
- Min. working temperature: -55°C



MR Precision Resistor
Metal foil resistor with extended temperature range of -65°C..+175°C, power rating up to 0,5W @125°C and wide TC range of ±1 ppm..±15 ppm

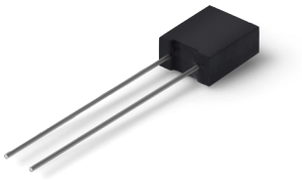
- Temperature coefficient up to ±1 ppm/°C
- Exact values up to ±0,005% resistance tolerance
- Low current noise

- Technology: Metal foil
- Design: Radial leaded
- Power rating: ≤0,5W @125°C
- Resistance range: 1Ω..400kΩ
- Resistance tolerance: ±0,005%..±0,1%
- Temperature coefficient: ±1..±15 ppm/°C
- Max. working temperature: +175°C
- Min. working temperature: -65°C

MFL Precision Resistor
Metal foil resistor with low TC value up to ±2.5 ppm/°C

- Very long-term stable
- Temperature coefficient up to ±1 ppm/°C
- Exact values up to ±0,05% resistance tolerance
- Low current noise

- Technology: Metal foil
- Design: Radial leaded
- Power rating: ≤0,25W @70°C
- Resistance range: 10Ω..200kΩ
- Resistance tolerance: ±0,05%..±1%
- Temperature coefficient: ±2,5..±5 ppm/°C
- Max. working temperature: +155°C
- Min. working temperature: -25°C

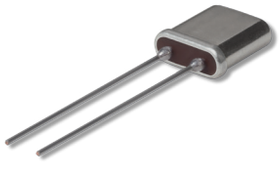


UMX Precision Resistor

Radial wired resistor with resistance range of 0.01Ω..1MΩ, resistance tolerance up to ±0,05%

- Resistance range from 10Ω..1MΩ
- Temperature coefficient from ±5 ppm/°C (optional ±1..2 ppm/°C)
- Power rating up to 0,5 watts @70°C
- Low induction and capacitive free design
- Robust epoxy housing

- Technology: Metal film
- Design: Radial leaded
- Power rating: ≤0,5W @70°C
- Resistance range: 10Ω..1MΩ
- Resistance tolerance: ±0,05%..±0,1%
- Temperature coefficient: ±5..±25 ppm/°C (optional ±1..2 ppm/°C)
- Max. working temperature: +125°C
- Min. working temperature: -55°C



MZH Ultra Precision Resistor

Ultra-precise resistor with ±0 ppm/°C TCR value @25°C and resistance tolerance up to ±0,005% in metal housing

- Temperature coefficient ±0 ppm/°C @25°C
- Long-term stable metal foil resistor
- Resistance range 100Ω..100kΩ
- High precision, resistance tolerances from ±0,005%
- Hermetically sealed metal housing

- Technology: Metal foil
- Design: Radial leaded
- Power rating: ≤0,3W @70°C
- Resistance range: 100Ω..100kΩ
- Resistance tolerance: ±0,005%..±1%
- Temperature coefficient: ±0 ppm/°C @25°C
- Max. working temperature: +150°C
- Min. working temperature: -65°C

MST Shunt Resistor

Bare metal shunt resistor with power rating up to 5 watts @85°C and tolerances of ±1%..±5%

- Bare metal resistor
- Current sense resistor
- Power rating up to 5 watts @85°C
- Resistance values of 0,005Ω..0,1Ω
- Resistance tolerance from ±1%, ±5%
- Low inductance <10nH

- Technology: Bare metal
- Design: Radial leaded
- Power rating: ≤5W @85°C
- Resistance range: 0,005..0,1Ω
- Resistance tolerance: ±1%..±5%
- Temperature coefficient: ±20 ppm/°C
- Max. working temperature: +270°C
- Min. working temperature: -55°C

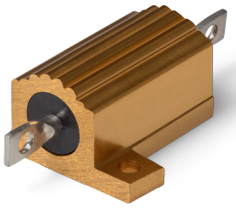
NC550 Precision Resistor

Metal film resistor with wide resistance range of 1Ω..5MΩ and resistance tolerance up to ±0.05%

- Resistance values of 1Ω..5MΩ
- Resistance tolerances up to ±0,05%
- Temperature coefficient from ±3 ppm/°C
- Rated load 0,6 watts @40°C
- Low inductance (optional)
- Preloaded @100 h rated load (optional)

- Technology: Metal film
- Design: Axial leaded
- Power rating: ≤0,4W @70°C / ≤0,6W @40°C
- Resistance range: 1Ω..5MΩ
- Resistance tolerance: ±0,05%..±0,1%
- Temperature coefficient: ±3..±25 ppm/°C
- Max. working temperature: +125°C
- Min. working temperature: -25°C

Power Resistors

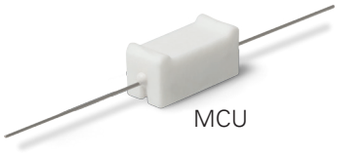


MAL Power Resistor

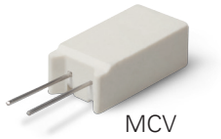
250 watts power resistor @25°C in aluminium housing with very high temperature range of -55°C..+275°C

- Power up to 250 watts with heat-sink
- Power up to 100 watts without heat-sink
- Aluminium housing
- Low inductance winding (option)
- Numerous connection variants

- Technology: Wirewound
- Design: Axial leaded
- Power rating: ≤250W @25°C
- Resistance range: 0,01Ω..250kΩ
- Resistance tolerance: ±0,01%..±10%
- Temperature coefficient: ±20..±90 ppm/°C
- Max. working temperature: +275°C
- Min. working temperature: -55°C



MCU



MCV

MCU and MCV Power Resistor

15 watts (MCU), 10 watts (MCV) @75°C power resistor in flame-proofed ceramic housing with very high temperature range -55°C..+275°C

- Does not require a heat-sink
- Flame-proofed - wirewound resistor cemented in ceramic
- Non-inductive windings (option)
- MCU with spacer (option)

- Technology: Wirewound
- Design: Axial (MCU), radial (MCV) leaded
- Power rating: ≤15W (MCU), 10W (MCV) @75°C
- Resistance range: 0,01Ω..91kΩ
- Resistance tolerance: ±0,01%..±10%
- Temperature coefficient: ±20..±90 ppm/°C
- Max. working temperature: +275°C
- Min. working temperature: -55°C

UT Power Resistor

10 watts high temperature power resistor for max. -55°C..+350°C with wide resistance range

- Does not require a heat-sink
- Very good impulse handling
- Non-inductive windings (option)
- Option (HT) temperature range from -55°C..350°C
- Option 4-pin (Kelvin) connection

- Technology: Wirewound
- Design: Axial leaded
- Power rating: ≤10W @25°C
- Resistance range: 0,01Ω..260kΩ
- Resistance tolerance: ±0,01%..±10%
- Temperature coefficient: ±20..±90 ppm/°C
- Max. working temperature: +350°C
- Min. working temperature: -55°C

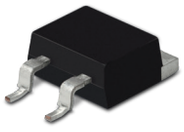
SUT Power Resistor

Compact 15 watts power resistor with 0,01Ω..260kΩ, max. -55°C..+250°C

- Space saving design
- Does not require a heat-sink
- Very good impulse handling
- Non-inductive windings (option)

- Technology: Wirewound
- Design: Axial leaded
- Power rating: ≤15W
- Resistance range: 0,01Ω..260kΩ
- Resistance tolerance: ±0,01%..±10%
- Temperature coefficient: ±20..±90 ppm/°C
- Max. working temperature: +250°C
- Min. working temperature: -55°C

Power Resistors in TO-Housing



M35 Power Resistor
35 watts power resistor @25°C in TO-263 housing

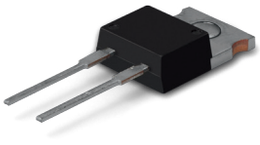
- High power up to 35 watts (on heat-sink)
- TO-263 housing (D-PAK)
- Low inductance (<10nH)
- Solder resistance in reflow process at 260°C / 20 s

- Technology: Metal film
- Design: TO-263
- Power rating: ≤35W @25°C
- Resistance range: 0,01Ω..51kΩ
- Resistance tolerance: ±1%..±5%
- Temperature coefficient: ±50..±250 ppm/°C
- Max. working temperature: +175°C
- Min. working temperature: -55°C

M126 Power Resistor
20 watts power resistor @25°C in TO-126 housing

- Power rating up to 20 watts (on heat-sink)
- TO-126 housing
- Small dimensions and flat design
- Low inductance (<50nH)

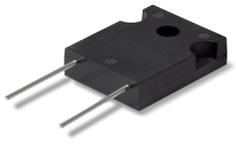
- Technology: Metal film
- Design: TO-126
- Power rating: ≤20W @25°C
- Resistance range: 0,01Ω..51kΩ
- Resistance tolerance: ±1%..±5%
- Temperature coefficient: ±50..±250 ppm/°C
- Max. working temperature: +155°C
- Min. working temperature: -55°C



M220 Power Resistor
50 watts power resistor @25°C in TO-220 housing

- Power rating up to 50 watts (on heat-sink)
- TO-220 housing
- Low inductance (<10nH)

- Technology: Metal film
- Design: TO-220
- Power rating: ≤50W @25°C
- Resistance range: 0,01Ω..51kΩ
- Resistance tolerance: ±1%..±5%
- Temperature coefficient: ±50..±250 ppm/°C
- Max. working temperature: +175°C
- Min. working temperature: -55°C

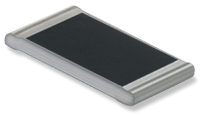


M247 Power Resistor
140 watts power resistor @25°C in TO-247 housing

- Power rating up to 140 watts (on heat-sink)
- TO-247 housing
- Low inductance (<50nH)

- Technology: Metal film
- Design: TO-247
- Power rating: ≤140W @25°C
- Resistance range: 0,02Ω..51kΩ
- Resistance tolerance: ±1%..±5%
- Temperature coefficient: ±50..±250 ppm/°C
- Max. working temperature: +175°C
- Min. working temperature: -55°C

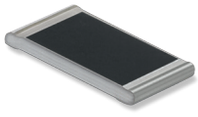
SMD Resistors



CPH SMD Resistor
SMD resistor with excellent long-term stability, up to ±1 ppm/°C

- Ultra-precise NiCr chip resistance
- Advanced thin-film technology
- Low noise construction
- Extremely corrosion resistant (passivation)

- Technology: Thin film
- Design: 0603, 0805, 1206, 2010, 2512
- Power rating: ≤0,75W @70°C
- Resistance range: 100Ω..200KΩ
- Resistance tolerance: ±0,01%..±0,5%
- Temperature coefficient: ±1..±2 ppm/°C
- Max. working temperature: +155°C
- Min. working temperature: -55°C



CPM SMD Resistor
SMD resistor with very large resistance range of 47Ω..1MΩ and good long-term stability

- Ultra-precise NiCr chip resistance
- Advanced thin-film technology
- Low noise construction
- Extremely corrosion resistant (passivation)

- Technology: Thin film
- Design: 0603, 0805, 1206, 0402
- Power rating: ≤0,25W @85°C
- Resistance range: 47Ω..1MΩ
- Resistance tolerance: ±0,02%..±0,5%
- Temperature coefficient: ±5..±10 ppm/°C
- Max. working temperature: +155°C
- Min. working temperature: -55°C

MMP/MMQ SMD Resistor
Very temperature stable SMD resistor up to +125°C

- Very good long-term stability
- Free bended terminals
- Temperature range -65°C..+175°C

- Technology: Metal foil
- Design: SMD
- Power rating: ≤0,125W @125°C
- Resistance range: 30Ω..60kΩ
- Resistance tolerance: ±0,01%..±0,1%
- Temperature coefficient: ±5..±10 ppm/°C
- Max. working temperature: +175°C
- Min. working temperature: -65°C

MSI SMD Resistor
Flame-resistant SDM resistor with load capacity up to 4W @70°C and very high temperature range -55°C..+275°C

- Flame-resistant UL94 V-0
- Resistance values from 0.005Ω..50kΩ
- Non-inductive windings (option)

- Technology: Wirewound
- Design: SMD
- Power rating: ≤4W @70°C
- Resistance range: 0,005Ω..50kΩ
- Resistance tolerance: ±0,05%..±5%
- Temperature coefficient: ±20..±50 ppm/°C
- Max. working temperature: +275°C
- Min. working temperature: -55°C

Voltage Divider

MMU SMD Resistor as Voltage Divider
Very temperature-stable voltage divider up to 0,05W @125°C in SMD design

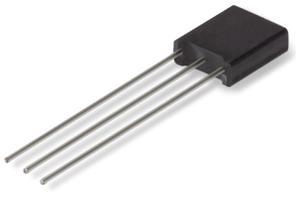
- Robust epoxy housing
- Low induction and low noise
- Very high accuracy and stability

- Technology: Metal foil
- Design: SMD
- Power rating: ≤0,05W @125°C
- Resistance range: 10Ω..20kΩ
- Resistance tolerance: ±0,02%..±0,5% absolute
- Temperature coefficient: ±5..±15 ppm/°C absolute
- Max. working temperature: +150°C
- Min. working temperature: -65°C

MLD Voltage Divider
2-fold voltage divider with max. 30kΩ resistance value

- Low noise with good long-term stability

- Technology: Metal foil
- Design: Radial leaded
- Power rating: ≤0,25W @70°C
- Resistance range: 50Ω..30kΩ
- Resistance tolerance: ±0,05%..±0,5% absolute
- Temperature coefficient: ±2,5..±5 ppm/°C absolute
- Max. working temperature: +125°C
- Min. working temperature: -25°C



MSM Voltage Divider
Very temperature-stable 2-fold voltage divider up to +125°C with max. 30kΩ

- High load capacity up to +125°C
- Low noise with good long-term stability
- Solid and moisture resistant epoxy housing

- Technology: Metal foil
- Design: Radial leaded
- Power rating: ≤0,3W @125°C
- Resistance range: 50Ω..30kΩ
- Resistance tolerance: ±0,02%..±0,1% absolute
- Temperature coefficient: ±2,5..±5 ppm/°C absolute
- Max. working temperature: +150°C
- Min. working temperature: -55°C

Thermistors

TM Thermistor PTC Resistor
Ultra precision and linear thermistor PTC resistor with TCR up to +4250…+6590 ppm/°C

- Thermistor with high long-term stability
- High precision, resistance tolerances from ±0,5% @0°C
- Temperature coefficient up to 6590 ppm @0°..100°C
- Linear temperature behaviour
- Short response time
- Customized temperature characteristics (on request)

- Technology: Metal foil
- Design: Radial leaded
- Power rating: ≤0,25W @70°C
- Resistance range: 5Ω..1kΩ
- Resistance tolerance: ±0,5%..±5%
- Temperature coefficient: ±4250...±6590 ppm/°C
- Max. working temperature: +125°C
- Min. working temperature: -25°C

MEGATRON Elektronik GmbH & Co. KG is a leading German supplier of precision sensors, industrial joysticks, small plastic parts and electronic housings. Founded in 1960, MEGATRON is an owner-run company based in Putzbrunn near Munich, Germany. It develops, produces and markets its own products as well as those of its longstanding international partners all over the world. MEGATRON works closely with OEM customers to develop individual and economical product solutions. A wide selection of immediately available stock items completes the portfolio.

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