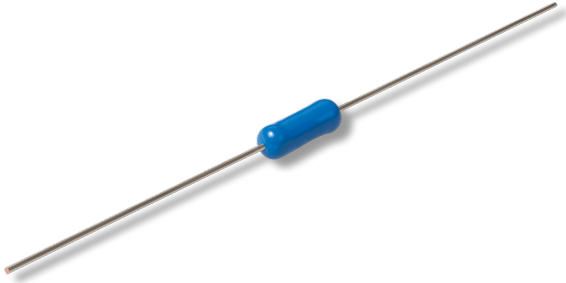


Data Sheet for Precision Resistors

Metal Film Resistor

Series NC550



- Precision Resistor for universal Purposes
- Resistor Values from 1Ω..5MΩ
- Resistor Tolerance up to ±0,05%
- TCR up to ±3ppm/°C
- Power Rating 0,6 Watts @40°C
- Low Inductance Version (optional)
- Pre-Loaded @ 100 h rated power (optional)

Electrical Specification

| | |
|----------------------------------|------------------------------------------------------------|
| Resistance range | 1Ω..5MΩ |
| Resistance tolerance | ±0,05%..±0,1% |
| Power rating (0W @ +125°C) | 0,4W @ 70°C / 0,6W @ 40°C |
| Max. working voltage | 300V |
| TCR-rate | ±3..±50ppm/°C |
| Working temperature range (max.) | -25..+125°C @ TK≥ ±25ppm/°C / -10..+85°C @ TK≤ ±15ppm/°C / |

Mechanical Specification

| | |
|----------------------------------|---------------------|
| Resistance technology / material | Metal film |
| Connections | Axial cooper tinned |

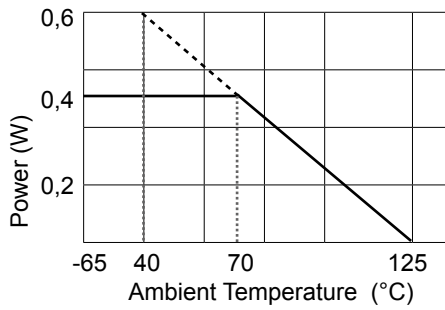
| Parameters | Test Conditions IEC 60115-1 (Methode IEC 60068-2) | Specification |
|------------------------------|---------------------------------------------------|------------------------------------------------|
| Short time overload | 2,5 x rated voltage, 5 sec. | $\Delta R \leq \pm 0,1\%$ (+0,01Ω) |
| Life span (biased) | 70°C, rated voltage, 5000 h / 10000 h | $\Delta R \leq \pm 0,5\%$ / $\pm 1\%$ (+0,05Ω) |
| High temperature / humidity | 55°C, 24 h, 90% r. to 100%; 1 cycle | $\Delta R \leq \pm 0,5\%$ (+0,05Ω) |
| Temperature shock | -65°C 30 min., +155°C 30 min, 5x | $\Delta R \leq \pm 0,1\%$ (+0,01Ω) |
| Solderability | 260°C, 2 sec. | ≥95% coverage |
| Resistance to soldering heat | 260°C±5°C, 10 sec. | $\Delta R \leq \pm 0,1\%$ (+0,01Ω) |
| Isolation resistance | | >10GΩ |
| Voltage coefficient | | < 1ppm/V |

Data Sheet for Precision Resistors

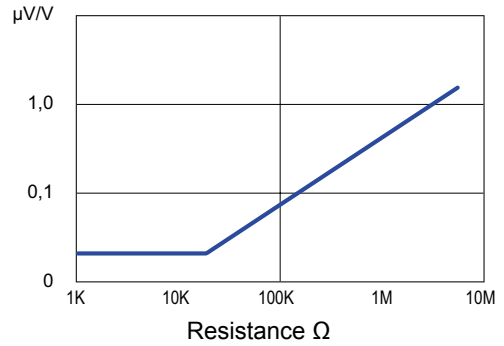
Metal Film Resistor

Series NC550

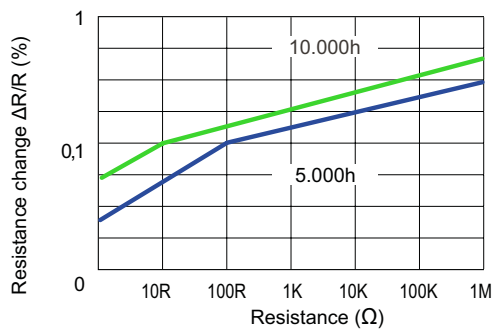
Power Derating Curve



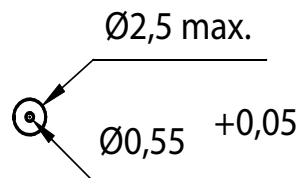
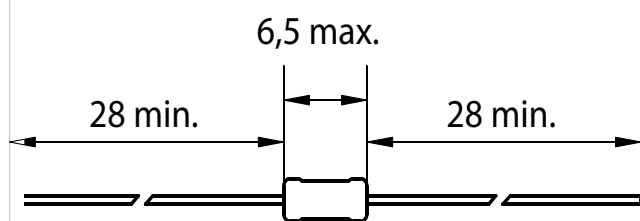
Current Noise



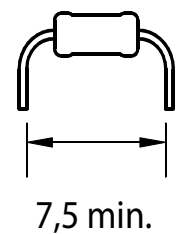
Stability $P_{70} = 0,4$ watts



Technical Drawing



Bending radius



Dimensions in mm

Data Sheet for Precision Resistors

Metal Film Resistor

Series NC550

| Order code | | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|------------------------------------------------------------------------------|-------------|-----------------|---|
| Description | | Selection: standard=black/bold, possible options=grey/cursive | | | | |
| Series: | NC550 | | | | | |
| Resistance tolerance: ±0,05 @ R = 50Ω..510kΩ ±0,10 @ R = 5Ω..3MΩ ±0,25 @ R = 5Ω..3MΩ ±0,50 @ R = 5Ω..5MΩ ±1,00 @ R = 1Ω..5MΩ | | | W0,05% W0,1% W0,25% W0,5% W1% | | | |
| Temperature coefficient: | | | | | | |
| ±3% ppm/°C | @±0,05 Tolerance (R = 50Ω..120kΩ) @±0,1..±0,5 Tolerance (R = 30Ω..200kΩ) | | | TK3 | | |
| ±5% ppm/°C | @±0,05 Tolerance (R = 50Ω..250kΩ) @±0,1..±0,5 Tolerance (R = 10Ω..500kΩ) | | | TK5 | | |
| ±10% ppm/°C | @ ±0,05 Tolerance (R = 50Ω..510kΩ) @±0,1..±0,5 Tolerance (R = 5Ω..1MΩ) | | | TK10 | | |
| ±15% ppm/°C | @±0,05 Tolerance (R = 50Ω..510kΩ) @±0,1 Tolerance (R = 5Ω..1,5MΩ) @±0,25..±0,5 Tolerance (R = 5Ω..2MΩ) @±1 Tolerance (R = 1Ω..2MΩ) | | | TK15 | | |
| ±25% ppm/°C | @±0,05 Tolerance (R = 50Ω..510kΩ) @±0,1 Tolerance (R = 5Ω..3MΩ) @±0,25 Tolerance (R = 5Ω..3MΩ) @±0,5 Tolerance (R = 5Ω..5MΩ) @±1 Tolerance (R = 1Ω..5MΩ) | | | TK25 | | |
| Resistance value - please choose: From 1Ω to ≤ 5MΩ (please note tolerance + TCR) | | | | | xxxxkxxx | |
| Option pre-loaded 100h @ resistance value (related V / W) | | | | | | V |
| Option taping from 100 pcs. possible / ammo pack | | | | | | G |
| Option taping from 5000 pcs. possible / reel | | | | | | P |

| Order Example | Series | Resistance tolerance | Temperature coefficient | Resistance value | Pre-loaded | Taping |
|---------------|--------|----------------------|-------------------------|------------------|------------|--------|
| Choice | NC550 | ±0,1% | 5ppm/°C | 10,1kΩ | No | Yes |
| Code | NC550 | W0,1% | TK5 | 10k100 | - | G |