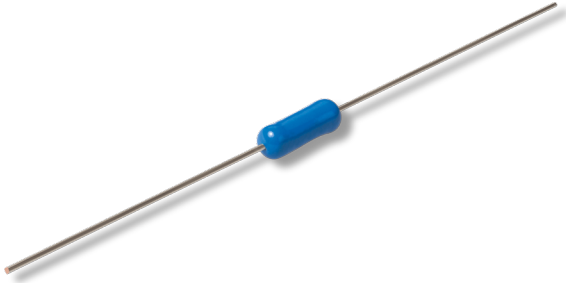


Data Sheet for Precision Resistors

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

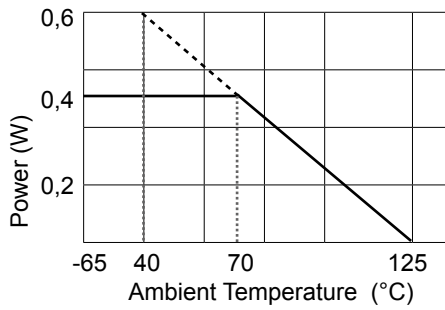
Parameters	Test Conditions IEC 60115-1 (Methode IEC 60068-2)	Specification
Short time overload	2,5 x rated voltage, 5 sec.	$\Delta R \leq \pm 0,1\%$ (+0,01Ω)
Life span (biased)	70°C, rated voltage, 5000 h / 10000 h	$\Delta R \leq \pm 0,5\%$ / $\pm 1\%$ (+0,05Ω)
High temperature / humidity	55°C, 24 h, 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

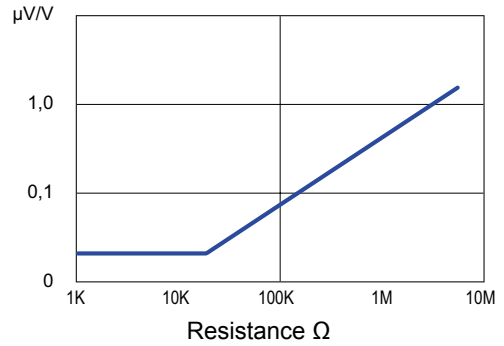
Metal Film Resistor

Series NC550

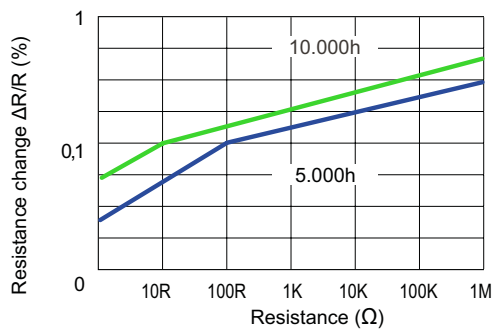
Power Derating Curve



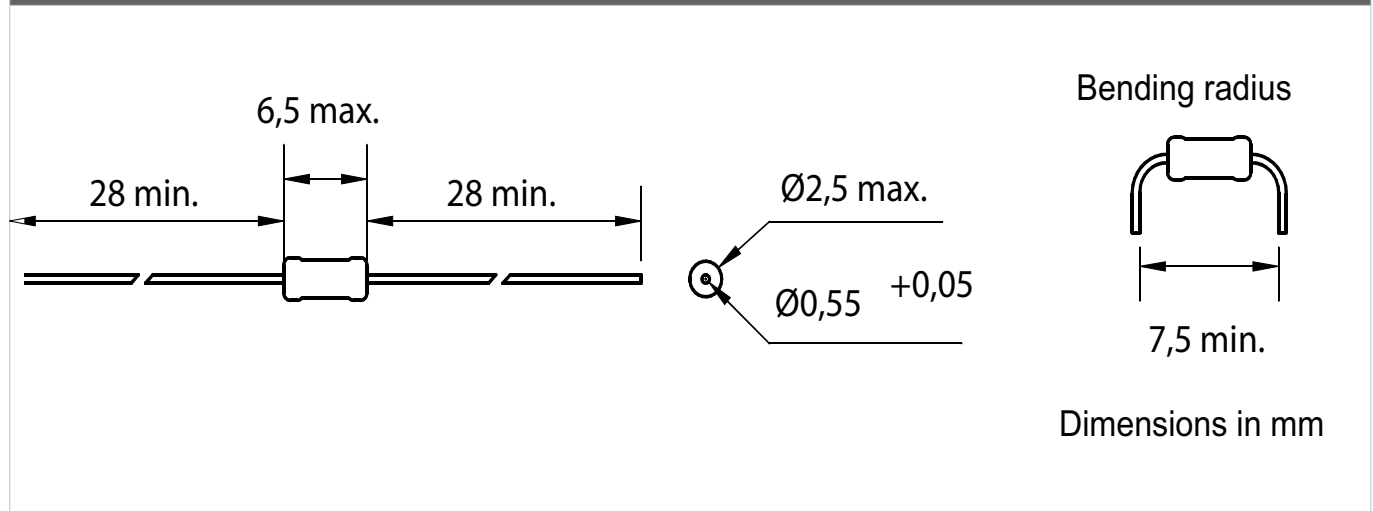
Current Noise



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



Technical Drawing



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	
<i>Option pre-loaded 100h @ resistance value (related V / W)</i>						<i>V</i>
<i>Option taping from 100 pcs. possible / ammo pack</i>						<i>G</i>
<i>Option taping from 5000 pcs. possible / reel</i>						<i>P</i>

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