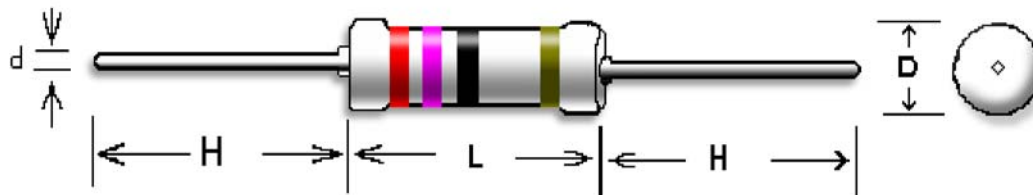


# NL-Series Non-inductive Resistor

## Features

Non-inductive resistor is required by environment that demands consistent performance. With our proprietary conductive film, this NL series is designed to be low noise, low temperature coefficient, and virtually no inductance.



## Dimensions:

Type	Body Length (L , mm)	Body Diameter (D , mm)	Lead Wire Length (H , mm)	Lead Wire Diameter (d , mm)	Net Weight Per 1000Pcs
NL51	8.8±1.0	3.2±0.2	26±3.0	0.70±0.03	340 Grams
NL100	10.5±1.0	3.5±0.5	28±3.0	0.7±0.03	500 Grams
NL200	13.5±1.0	5.0±0.5	30±3.0	0.8±0.03	1050 Grams
NL300	15.5±1.0	5.5±0.5	30±3.0	0.8±0.03	1200 Grams
NL400	19.0±1.0	6.0±0.5	30±3.0	0.8±0.03	1620 Grams
NL500	19.0±1.0	8.0±0.5	30±3.0	0.8±0.03	3100 Grams
NL700	31.5±1.0	8.0±0.5	30±3.0	0.8±0.03	4000 Grams
NL1000	52.5±1.5	8.0±0.5	39±3.0	0.8±0.03	6900 Grams

*NL-1000 available only in bulk package.*

## General Specifications:

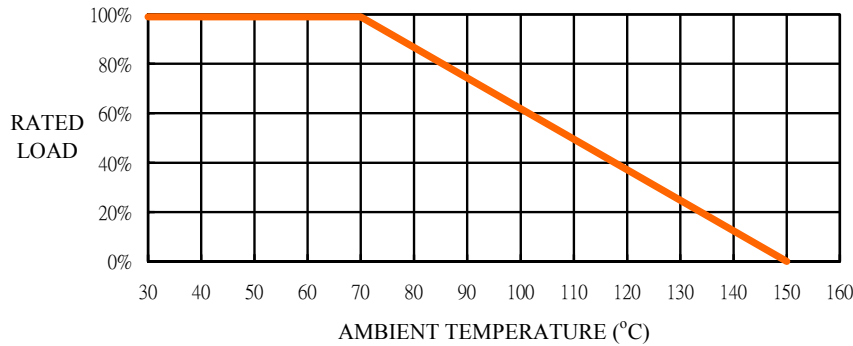
Type	Power Rating At 70°C	Max. Working Voltage	Max. Overload Voltage	Min. Resistance	Max. Resistance	Resistance Tolerance	Standard Resistance Values
NL51	1/2W	350V	700V	0.1Ω	10K	±1%, 5%	E-24 / E-96
NL100	1W	350V	700V	0.1Ω	10K	±1%, 5%	E-24 / E-96
NL200	2W	350V	700V	0.1Ω	12K	±1%, 5%	E-24 / E-96
NL300	3W	350V	700V	0.1Ω	15K	±1%, 5%	E-24 / E-96
NL400	4W	450V	800V	0.1Ω	18K	±1%, 5%	E-24 / E-96
NL500	5W	500V	1000V	0.1Ω	20K	±1%, 5%	E-24 / E-96
NL700	7W	600V	1200V	0.22Ω	22K	±1%, 5%	E-24 / E-96
NL1000	10W	1000V	2000V	0.33Ω	27K	±1%, 5%	E-24 / E-96

*Special sizes, values, and specifications not listed available on special order.*

Jun. 01, 1999

# NL-Series Non-inductive Resistor

POWER DERATING CURVE



## Performance Specifications:

Characteristics	Limits
Dielectric Withstanding Voltage, VAC or DC	NL51: 350 NL100/ 200: 600 NL300 to 1000: 1000
Temperature Coefficient, PPM /°C	±100, 300
Operating Temperature Range, °C	-55~+150
Insulation Resistance, M	10 <sup>4</sup>
Voltage Coefficient, PPM / V	25

## Performance Specifications

Test Characteristics	Test Conditions	Limits
Short Time Over Load	IEC 60115-1 4.13 5 seconds 2.5x rated voltage (not over max. overload voltage)	±(0.5%+0.05R)
Load Life In Humidity	IEC 60115-1 4.24 56 days at 40°C and 93% relative humidity	±(1% + 0.05R)
Load Life 1,000 hours	IEC 60115-1 4.25.1 Rated load 1.5 hours ON, 0.5 hours OFF, at 70°C	±(1% + 0.05R)
Resistance To Soldering Heat	IEC 60115-1 4.18 10 seconds at 260°C solder bath temperature	±(0.5% + 0.05R)
Solderability	MIL-STD-202 Method 208 Solder area covered after 230±5°C/5+0.5 seconds w/ flux applied	90% Min.
Vibration	MIL-STD-202 Method 204 Six hours in each parallel and axial direction w/ a simple harmonic motion having an amplitude of 1.52mm and 10 to 20,000 Hz.	±(0.25% + 0.05R)
Terminal Endurance	IEC 60115-1 4.25.3 1000 hours at 125°C without load	±(0.5% + 0.05R)
Thermal Shock	IEC 60115-1 4.19 -55°C 30minutes, +125°C 30minutes, 5 cycles	±(0.5% + 0.05R)

## Ordering Information

Type	Tolerance	Temperature Coefficient	Resistance Value	Packaging	Special Request (Optional)
NL100 NL200	J (5%)	TK100	10K	B TB	LV (Low value)

Jun. 01, 1999