

# Metal Oxide Resistors, Special Purpose, High Voltage



## FEATURES

- Low TCR:  $\pm 200$  ppm/ $^{\circ}\text{C}$  standard;  $\pm 100$  ppm/ $^{\circ}\text{C}$ ,  $\pm 50$  ppm/ $^{\circ}\text{C}$  available
- $\pm 1\%$  standard to  $1\text{ G}\Omega$ ;  $\pm 5\%$  above  $1\text{ G}\Omega$   
 $\pm 0.5\%$  available in  $\pm 50$  ppm/ $^{\circ}\text{C}$  only.  
Special tolerance and/or temperature coefficient matching available.
- High Voltage (up to  $8\text{ kV}$ )
- For oil bath or open air operation
- Matched sets available
- Special testing available upon request
- Compliant to RoHS directive 2002/95/EC



Available



RoHS\*  
COMPLIANT

## STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL	HISTORICAL MODEL	POWER RATING			VOLTAGE RATING $V_{\equiv}$	RESISTANCE RANGE $\Omega$ <sup>(2)</sup>			
		$P_{25^{\circ}\text{C}}$ W <sup>(1)</sup>	$P_{70^{\circ}\text{C}}$ W <sup>(1)</sup>	$P_{125^{\circ}\text{C}}$ W <sup>(1)</sup>		200 ppm	100 ppm	50 ppm	NON-INDUCTIVE <sup>(3)</sup>
RNX025	RNX-1/4	0.5	0.36	0.25	750 V	1K to 100M	1K to 100M	1M to 22M	100R to 100K
RNX038	RNX-3/8	1.0	0.72	0.5	1.5 kV	1K to 1G	1K to 100M	1M to 50M	100R to 100K
RNX050	RNX-1/2	1.2	0.86	0.6	2 kV	1K to 2G	1K to 250M	1M to 100M	100R to 100K
RNX075	RNX-3/4	2.0	1.44	1.0	3 kV	1K to 2G	1K to 500M	1M to 100M	100R to 100K
RNX100	RNX-1	2.5	1.8	1.25	4 kV	1K to 2G	1K to 500M	1M to 100M	100R to 1M
RNX125	RNX-1-1/4	3.0	2.16	1.5	5 kV	1K to 2G	1K to 500M	-	100R to 1M
RNX150	RNX-1-1/2	4.0	2.88	2.0	6 kV	1K to 2G	1K to 500M	-	100R to 1M
RNX200	RNX-2	5.0	3.6	2.5	8 kV	1K to 2G	1K to 500M	-	100R to 1M

### Notes

<sup>(1)</sup> Increase wattage by 25 % for 0.032" [0.813 mm] diameter leads

<sup>(2)</sup> For resistance values above and below those listed please contact us

<sup>(3)</sup> Non inductive  $\pm 200$  ppm/ $^{\circ}\text{C}$  TCR only

- All resistance values are calibrated at  $100\text{ V}_{\text{DC}}$ . Calibration at other voltages available.
- Part marking: Print marked - DALE, model, value, tolerance, TCR, date code (model and date omitted on RNX-1/4)
- Special modifications:
  - Special preconditioning (power aging, temperature cycling etc.) to customer specifications
  - Non-helixed resistors can be supplied for critical high frequency applications (non-inductive)

## GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: RNX05010K0KKLB (preferred part numbering format)

GLOBAL MODEL	RESISTANCE VALUE	TOLERANCE CODE	TEMP. COEFFICIENT	PACKAGING <sup>(4)</sup>	CONSTRUCTION	SPECIAL
(See Standard Electrical Specifications table)	R = Decimal K = Thousand M = Million G = Billion 910R = $910\ \Omega$ 10M0 = $10\text{ M}\Omega$ 1G00 = $1.0\text{ G}\Omega$	D = $\pm 0.5\%$ F = $\pm 1\%$ G = $\pm 2\%$ J = $\pm 5\%$ K = $\pm 10\%$	H = 50 ppm K = 100 ppm N = 200 ppm	EL = Lead (Pb)-free, Lacer EB = Lead (Pb)-free, T/R (1000 pcs) EE = Lead (Pb)-free, T/R (1000 pcs) LB = Tin/Lead, Lacer R6 = Tin/Lead, T/R (1000 pcs) RC = Tin/Lead, T/R (1000 pcs) RF = Tin/Lead, T/R (1000 pcs)	Blank = Standard N = Non-inductive P = 0.032" $\varnothing$ leads	Blank = Standard (Dash number) (Up to 3 digits) From 1 to 999 as applicable

Historical Part Number example: RNX-1/210K0KK (will continue to be accepted)

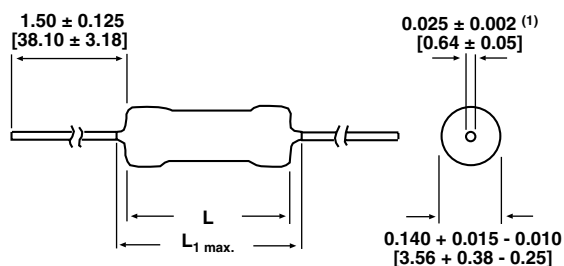
RNX-1/2		10K0	K	K	L05
HISTORICAL MODEL	CONSTRUCTION	RESISTANCE VALUE	TOLERANCE CODE	TEMP. COEFFICIENT	PACKAGING

### Notes

<sup>(4)</sup> Some packaging codes are model specific

\* Pb containing terminations are not RoHS compliant, exemptions may apply.

## DIMENSIONS



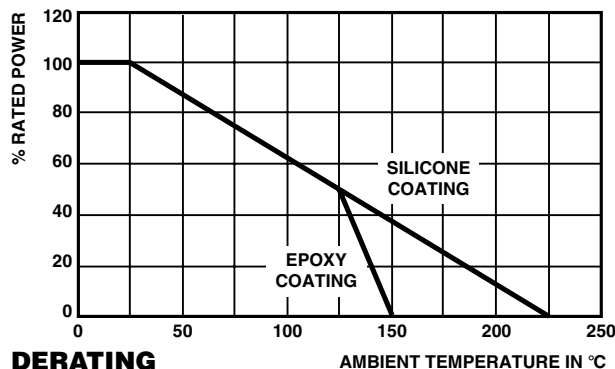
### Note

(1) Available with 0.032" [0.813 mm] leads ± 0.002" [0.051 mm]

GLOBAL MODEL	DIMENSIONS in inches [millimeters]	
	L	L <sub>1</sub> max.
RNX025	0.290 ± 0.020 [7.37 ± 0.51]	0.358 [9.09]
RNX038	0.420 ± 0.020 [10.67 ± 0.51]	0.470 [11.94]
RNX050	0.540 ± 0.020 [13.72 ± 0.51]	0.595 [15.11]
RNX075	0.790 ± 0.020 [20.07 ± 0.51]	0.845 [21.46]
RNX100	1.040 ± 0.020 [26.42 ± 0.51]	1.100 [27.81]
RNX125	1.290 ± 0.020 [32.77 ± 0.51]	1.350 [34.16]
RNX150	1.540 ± 0.020 [39.12 ± 0.51]	1.600 [40.51]
RNX200	2.040 ± 0.020 [51.82 ± 0.51]	2.100 [53.34]

## TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	RNX025	RNX038	RNX050	RNX075	RNX100	RNX125	RNX150	RNX200
Insulation Resistance	Ω	≥ 10 <sup>11</sup>							
Category Temperature Range	°C	Epoxy coated = - 55/+ 150; Silicone coated = - 55/+ 225							

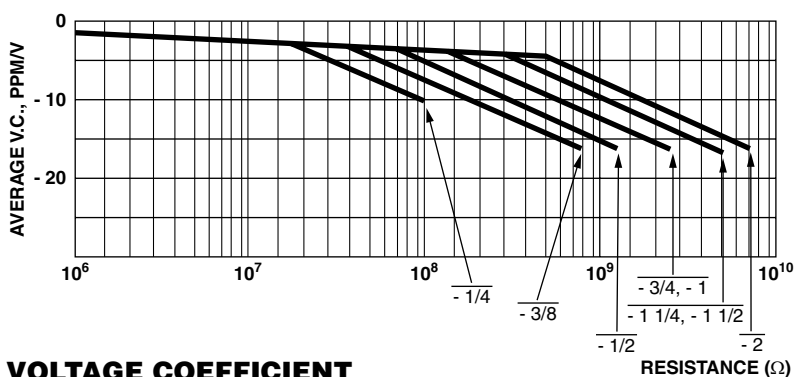


## MATERIAL SPECIFICATIONS

Element	High temperature fired cermet film
Core	High purity 96 % alumina
Coating	Flame-retardant epoxy on RNX025 and RNX038, flameproof silicone on RNX050 to RNX200
Termination	Standard lead material is solder - coated copper. Solderable and weldable.

## MECHANICAL SPECIFICATIONS

Terminal Strength	5 pound pull test
Solderability	Continuous satisfactory coverage when tested in accordance with MIL-STD-202, Method 208





### Disclaimer

All product specifications and data are subject to change without notice.

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