

Metal Oxide Resistors, Special Purpose, High Voltage



FEATURES

- Low TC: $\pm 200\text{ppm}/^\circ\text{C}$ standard. $\pm 100\text{ppm}/^\circ\text{C}$, $\pm 50\text{ppm}/^\circ\text{C}$ available.
- Tolerances: $\pm 1\%$, $\pm 2\%$, $\pm 5\%$, $\pm 10\%$
- For oil bath or open air operation
- Matched sets available
- Special testing available upon request

STANDARD ELECTRICAL SPECIFICATIONS

MODEL	POWER RATING			VOLTAGE RATING V_{\cong}	RESISTANCE RANGE Ω^{**}							
	$P_{25^\circ\text{C}}$ W*	$P_{70^\circ\text{C}}$ W*	$P_{125^\circ\text{C}}$ W*		$\text{TC} \pm 200\text{PPM}/^\circ\text{C}$		$\text{TC} \pm 100\text{PPM}/^\circ\text{C}$		$\text{TC} \pm 50\text{PPM}/^\circ\text{C}$		NON-INDUCTIVE $\text{TC} \pm 200\text{PPM}/^\circ\text{C}$	
					MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
ROX-1/2	2.0	1.4	1	2 KV	1K	1G	1K	100M	1M	100M	-	-
ROX-3/4	3.0	2.16	1.5	5 KV	1K	3G	1K	500M	1M	100M	100	1M
ROX-1	4.0	2.88	2	7.5KV	1K	3G	1K	500M	1M	100M	100	1M
ROX-1-1/2	5.0	3.6	2.5	11KV	1K	3G	1K	500M	1M	100M	100	1M
ROX-2	6.0	4.32	3	15KV	1K	3G	1K	1G	1M	500M	100	1M
ROX-3	10.0	7.2	5	22.5KV	1K	3G	1K	1G	1M	500M	400	10M
ROX-4	12.0	8.64	6	30KV	1K	3G	1K	1G	1M	500M	500	10M
ROX-5	16.0	11.52	8	37.5KV	1K	3G	1K	1G	1M	500M	500	10M
ROX-6	20.0	14.4	10	45KV	1K	3G	1K	1G	1M	500M	500	10M

NOTE:

- All resistance values are calibrated at 100 VDC. Calibration at other voltages available
- $\pm 1\%$ not available above 1G ohm.
- Part Marking: print marked - DALE, model, value, tolerance, temperature coefficient, date code
- *Increase wattage by 40% for 0.040" [1.02mm] diameter leads.

TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	ROX-1/2	ROX-3/4	ROX-1	ROX-1-1/2	ROX-2	ROX-3	ROX-4	ROX-5	ROX-6	
Insulation Resistance	Ω	$\geq 10^{11}$									
Category Temperature Range	$^\circ\text{C}$	- 55 / + 155									

ORDERING INFORMATION

ROX-3 (See options below)
MODEL OPTIONAL CONSTRUCTION

- None = Coated, axial leads.
- N = Coated, axial leads, non-inductive.
- P = Coated, .040" [1.02mm] diameter axial leads.
(Add 25% to wattage for .040" [1.02mm] diameter leads.)
- S = Coated, axial terminals, solid body.
- T = Coated, threaded terminals.
- Y = Coated, one end axial, one end threaded terminals.

100M5
RESISTANCE VALUE Ω

- Examples:
 200R = 200 Ω
 5K01 = 5010 Ω
 3M20 = 3.2 meg Ω
 110M5 = 110.5 meg Ω

G
TOLERANCE

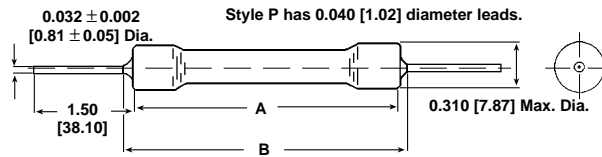
- K = $\pm 10\%$
- J = $\pm 5\%$
- G = $\pm 2\%$
- F = $\pm 1\%$

M
TEMPERATURE COEFFICIENT

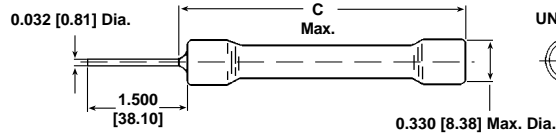
- M = $\pm 200\text{ppm}/^\circ\text{C}$
- K = $\pm 100\text{ppm}/^\circ\text{C}$
- H = $\pm 50\text{ppm}/^\circ\text{C}$

DIMENSIONS

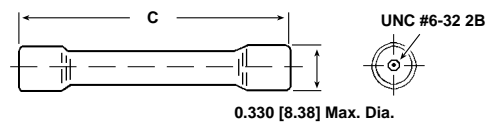
Styles N, P and S



Style Y

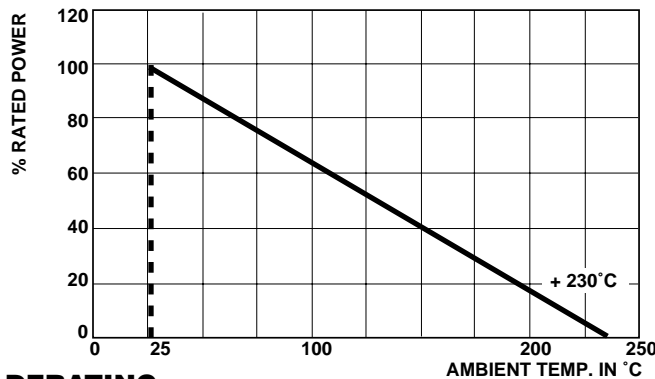


Style T



DIMENSIONS in inches [millimeters]

MODEL	STYLE N, P, S		STYLE T	STYLE Y
	A	B	C	C MAX
ROX-1/2	0.55 ± 0.032 [13.97 ± 0.81]	0.70 [17.78]	N/A	N/A
ROX-3/4	0.80 ± 0.032 [20.32 ± 0.81]	0.90 [22.86]	1.168 ± 0.022 [29.72 ± 0.56]	1.05 [26.67]
ROX-1	0.92 ± 0.032 [23.37 ± 0.81]	1.02 [25.91]	1.288 ± 0.022 [32.77 ± 0.56]	1.17 [29.72]
ROX-1- 1/2	1.55 ± 0.032 [39.37 ± 0.81]	1.65 [41.91]	1.918 ± 0.022 [48.77 ± 0.56]	1.80 [45.72]
ROX-2	2.05 ± 0.032 [52.07 ± 0.81]	2.15 [54.61]	2.418 ± 0.022 [61.47 ± 0.56]	2.30 [58.42]
ROX-3	3.05 ± 0.032 [77.47 ± 0.81]	3.15 [80.01]	3.418 ± 0.022 [86.87 ± 0.56]	3.30 [83.82]
ROX-4	4.05 ± 0.032 [102.87 ± 0.81]	4.15 [105.41]	4.418 ± 0.022 [112.27 ± 0.56]	4.30 [109.22]
ROX-5	5.05 ± 0.032 [128.27 ± 0.81]	5.15 [130.81]	5.418 ± 0.022 [137.67 ± 0.56]	5.30 [134.62]
ROX-6	6.05 ± 0.032 [153.67 ± 0.81]	6.15 [156.21]	6.418 ± 0.022 [163.07 ± 0.56]	6.30 [160.02]



DERATING

TEMPERATURE COEFFICIENT CODE

CODE	TEMPERATURE COEFFICIENT	OPERATING TEMPERATURE RANGE
M	± 200ppm/°C	- 55°C to + 125°C
K	± 100ppm/°C	+ 25°C to + 125°C
H	± 50ppm/°C	+ 25°C to + 125°C

MATERIAL SPECIFICATIONS

Element:	High temperature fired cermet film
Core:	High purity 96% alumina, tubular or solid
Coating:	Blue flameproof on ROX-1/2 thru ROX-2 Black silicone on ROX-3 thru ROX-6
Termination:	Standard lead material is solder - coated copper; solderable and weldable. 0.032" [0.813mm] Style P 0.040" [1.02mm] available

MECHANICAL SPECIFICATIONS

Terminal Strength:	10 pound pull test.
Solderability:	Continuous satisfactory coverage when tested in accordance with MIL -STD - 202, Method 208