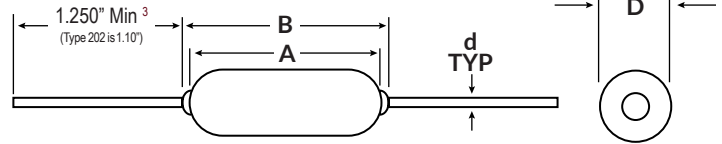


MINIATURE WIREWOUND RESISTORS

200 SERIES 1 to 10 Watt



RESISTOR



Typically half the size of conventional resistors! Type 202 is world's smallest wirewound resistor!
 Series 200 resistors offer the same MIL-grade construction as Series 100 resistors except utilize proprietary materials and processing, enabling significant size reductions. Series 200 resistors are ideal when PCB real estate is at a premium! Highest grade materials enable excellent stability and environmental performance. Mil-Spec screening available.

FEATURES

- ▶ Significant space savings!
- ▶ Tolerance to $\pm 0.010\%$, TCR to 5ppm/°C
- ▶ Wide resistance range: 0.005Ω to 250K
- ▶ All sizes available on Tape & Reel

OPTIONS

- ▶ **Opt. X:** Low Inductance
- ▶ **Opt. P:** Increased Pulse Capability
- ▶ **Opt. F:** Flameproof Coating (UL94V-0)
- ▶ **Opt. ER:** 100-Hour Burn-In
- ▶ **Opt. E:** Low Thermal EMF
- ▶ **Other:** Matched Sets, Cut & Formed Leads, Special Marking, 4-Terminal, Hi-Rel Screening, Hermetic Seal, Non-Standard Values, Increased Voltage, etc.

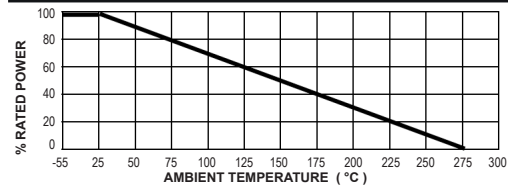
RCD TYPE	WATTAGE RATING (W)	MAX VOLTAGE ¹ (V)	RESISTANCE RANGE	DIMENSIONS In (mm)				
				A	B MAX	D ²	d	
							STD	OPT.
202	1	30	0.010Ω - 2K	0.150±0.032 [3.81±0.80]	0.200 [5.08]	0.064±0.020 [1.63±0.50]	0.020 [0.50]	N/A
210	2	40	0.010Ω - 10K	0.250±0.040 [6.35±1.0]	0.300 [7.62]	0.093±0.025 [2.36±0.60]	0.020 [0.50]	0.024 [0.60] (Opt. 22)
232	3	60	0.005Ω - 20K	0.350±0.040 [8.9±1.0]	0.480 [12.2]	0.140±0.032 [3.56±0.80]	0.031 [0.80]	N/A
235	5	157	0.005Ω - 40K	0.500±0.040 [12.7±1.0]	0.595 [15.1]	0.188±0.032 [4.78±0.80]	0.031 [0.80]	0.040 [1.0] (Opt. 18)
255	7	210	0.005Ω - 80K	0.625±0.040 [15.9±1.0]	0.765 [19.4]	0.232±0.032 [5.89±0.80]	0.040 [1.0]	N/A
272	10	600	0.005Ω - 250K	1.040±0.048 [26.4±1.2]	1.125 [28.6]	0.350±0.032 [8.89±0.80]	0.040 [1.0]	N/A

¹ Volt Rating determined by $E = \sqrt{(PR)}$, E not to exceed max. rating. Increased ratings available. Multiply by 0.70 for **Opt. X**.

² Allow 0.032" additional for **Opt. X** and values below 1.0Ω.

³ Lead Length applies to bulk packaged parts units, parts supplied on tape may be shorter (refer to taping specifications).

DERATING



Power resistors reach elevated temperatures when operated near full wattage, and therefore should be mounted off the PCB and derated according to required stability levels.

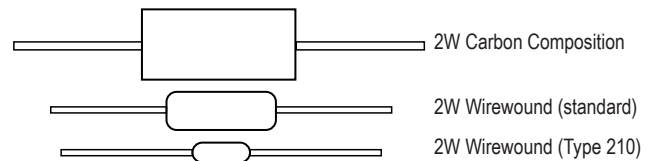
TYPICAL PERFORMANCE⁴

Temperature Coefficient TYP (Consult factory for TC on Opt. P)	0.0050Ω - 0.0099Ω	600ppm (standard)	
		200ppm, 300ppm (Opt.)	
	0.010Ω - 0.049Ω	300ppm (standard)	
		100ppm, 200ppm (Opt.)	
	0.050Ω - 0.099Ω	200ppm (standard)	
		50ppm, 100ppm (Opt.)	
	0.10Ω - 0.99Ω	90ppm (standard)	
20ppm, 30ppm, 50ppm (Opt.)			
1.0Ω - 9.9Ω	50ppm (standard)		
	10ppm, 20ppm, 30ppm (Opt.)		
10Ω & above	20ppm (standard)		
	5ppm, 10ppm (Opt.)		
Inductance, Standard	1μH to 50μH TYP (depends on size & resistance value)		
Inductance, Opt. X (levels as low as 20nH available)		≤50Ω	>50Ω
	Type 202X - 235X	0.20μH MAX	0.37μH MAX
	Type 255X	0.30μH MAX	0.60μH MAX
	Type 272X	0.60μH MAX	1.0μH MAX
Dielectric Strength	500V (300V Type 202), 1KV available (Opt. 33) ⁵		
Overload (5 sec.)	5X rated W 202-235, 10X rated W 255-272		

⁴ Dependent on value, options, etc.

⁵ Allow 0.020" additional to **Opt. 33** body diameter.

TYPICAL SIZE COMPARISON



PART NUMBER DERIVATION

