

VLR-Series

Ultra Low Ohm Metal Strip Chip Resistors

Sizes: 1206, 2010, 2512

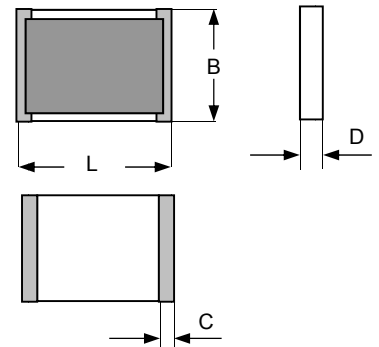
Features:

- Tight tolerances – down to $\pm 1\%$
- Pb-free terminations - RoHS compliant
- High power rating up to 3W
- Resistance values from 0.5 m Ω to 15 m Ω
- Low TCR available (50 ppm/K)
- Suitable for high temperature applications (up to 170°C)



Dimensions:

Size	L	B	C	D
1206	3.20 ± 0.25	1.60 ± 0.10	0.60 ± 0.25 ... 1.35 ± 0.25 ¹⁾	0.60 ± 0.20
2010	5.08 ± 0.25	2.54 ± 0.15	1.04 ± 0.25 ... 2.17 ± 0.25 ¹⁾	0.60 ± 0.20
2512G	6.35 ± 0.25	3.00 ± 0.20	1.18 ± 0.25 ... 2.68 ± 0.25 ¹⁾	0.60 ± 0.20
2512	6.35 ± 0.254	3.18 ± 0.254	1.30 ± 0.38	0.25 ... 1.25 ± 0.20 ¹⁾



L = length, B = Width, D = Thickness, C = Termination Width (in mm)

¹⁾ Depending on resistance value

Packaging:

Reel diameter 178 mm

Size	1206	2010	2512	2512G
Pieces per reel	2,000			
Embossed plastic tape	8mm	12mm		

Ordering Data:

Type – value – tolerance – TCR – (Coating)

(If no requirements for TCR, the highest value in table will be supplied)

Example: *VLR 2010 0R22 $\pm 1\%$ TCR 50 gn*

Minimum order quantity: 1 Reel

Technical data - general:

Temperature range	-55°C ... +170°C	
Climatic category acc. to EN 60068-1	55/170/56	
Solderability acc. to MIL-STD-202 Meth. 208H	245°C, 3s	
Max. soldering temperature acc. to MIL-STD-202 Meth. 210E / EN 60068-2-58	260°C, 10s	
Long term stability	Black coating	Green coating ²⁾
Load Life (1000h, 70°C, 1.5h on, 0.5h off) acc. to MIL-STD-202 Meth. 108A	< 1%	< 1%
Short time overload (2.5x rated power, 5s)	< 0.5%	< 1%
Dry Heat (1000h / 170°C)	< 1%	< 1%
Thermal Shock (100x -55°C...150°C) acc. to MIL-STD-202 Meth. 107G	< 0.5%	< 1%

²⁾ Not for wave soldering

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Technical data – depending on size and value:

Size	Power Rating P ₇₀ (W)	Tolerance	Value (mΩ)	C Termination Width	TCR (ppm/K)	Coating
1206	1	1%; 3%; 5%	0.5	1.35	200	no coating
			0.75 ... 10	0.6 ... 2.17	50	
2010	1.5 ³⁾	1%; 3%; 5%	0.5	1.35	100	
			0.75 ... 10	0.6 ... 2.17	50	
2512	1	1%; 3%; 5%	0.5 / 0.75 / 1 / 1.5 / 2	1.3	50	green or black ⁴⁾
			6 / 6.5 / 7	1.3	75	
			4 / 5 / 10	1.3	100	
			2.5 / 3	1.3	150	
	2 ³⁾	1%; 3%; 5%	0.5 / 0.75 / 1 / 1.5 / 2	1.3	50	
			6 / 6.5 / 7	1.3	75	
			4 / 5 / 10	1.3	100	
			2.5 / 3	1.3	150	
2512G	1	1%; 3%; 5%	11 / 12 / 13 / 14 / 15	all 1.18	50	green or black ⁴⁾
	2 ³⁾	1%; 3%; 5%	6.5 / 7 / 8 / 9 / 10	1.43 / 1.43 / 1.18 / 1.18 / 1.18	50	
	2.5 ³⁾	1%; 3%; 5%	4 / 4.5 / 5 / 6	2.18 / 2.18 / 1.93 / 1.93	50	
	3 ³⁾	1%; 3%; 5%	1 / 1.5 / 2 / 2.5 / 3 / 3.5	1.93 / 1.43 / 1.18 / ... / 1.18	50	
			0.5 / 0.75	2.68 / 2.48	100	

³⁾ High Power Rating Specifications: Max. operating current $I = \sqrt{P/R}$
Max. operating Voltage $V = \sqrt{P \cdot R}$

⁴⁾ Coating Green coating (gn): Reflow soldering only
Black coating (bk): Wave or reflow soldering