

- High value resistors in thick film technology
- Resistance values up to 1TΩ
- Excellent values of tolerance, TCR and VCR
- Untrimmed for higher working voltage
- Variable lead spacing
- Climatic silicone protective coat (conformal coating)
- Non magnetic
- Sizes: 1210, 2512, 4020



Technical Data

Table 1

Size		1210	2512	4020
Power rating P ₇₀ (W) (P ₁₂₅ = 0W)		0.5W	1W	2W
Working Voltage U ₋ , U _{eff} (V) ³ trimmed untrimmed (Tol. > 5%)		800V 1.2kV	2kV 3kV	4kV 6kV
Resistance / Tolerance % / Temperature Coefficient (TCR ¹) / VCR ² (Lower resistance tolerances, TCR & VCR on request & by agreement)				
1M - 100M	± % ppm/°C ppm/V	0.5, 1, 2, 5, 10 25, 50, 100 50	0.5, 1, 2, 5, 10 25, 50, 100 10	0.25, 0.5, 1, 2, 5, 10 25, 50, 100 5
>100M - 500M	± % ppm/°C ppm/V	2, 5, 10, 20 50, 100, 250 100	1, 2, 5, 10, 20 25, 50, 100 25	0.5, 1, 2, 5, 10, 20 25, 50, 100 10
500M - 1G	± % ppm/°C ppm/V	5, 10, 20 100, 250 100	1, 2, 5, 10, 20 100, 250 25	1, 2, 5, 10, 20 25, 50, 100 10
>1G - 10G	± % ppm/°C ppm/V	5, 10, 20, 30 250, 500 250	2, 5, 10, 20 100, 250 100	2, 5, 10, 20 50, 100 25
>10G - 100G	± % ppm/°C ppm/V	5, 10, 20, 30 500, 1000 500	5, 10, 20, 30 250, 500 250	5, 10, 20, 30 100, 250 100
>100G - 1T	± % ppm/°C ppm/V	-	10, 20, 30, 50 1000 500	5, 10, 20, 30 500 250

¹ Temperature coefficient TCR: in ppm/K +25°C to +125°C; TCR lower than standard TCR (highest value) >100G +25°C to +85°C.

² VCR: Typical values, all negative, not for all TCR values available.

³ Continuous operating voltage (U₋, U_{eff}): $V \leq \sqrt{P \cdot R}$ or max. working voltage (the lower value)

Technical Data - General

Operating temperature range	-55°C to +150°C		
Climatic category acc. to IEC 60068-1	55, 150, 56		
Humidity - / Contact protection	Silicone conformal coating ⁴		
Long term stability	≤ 1G	≤ 10G	> 10G
Storage 125°C/1000h	< 1%	< 2%	< 5%
Maximum voltage/1000h	< 0.5%	< 1%	< 2%

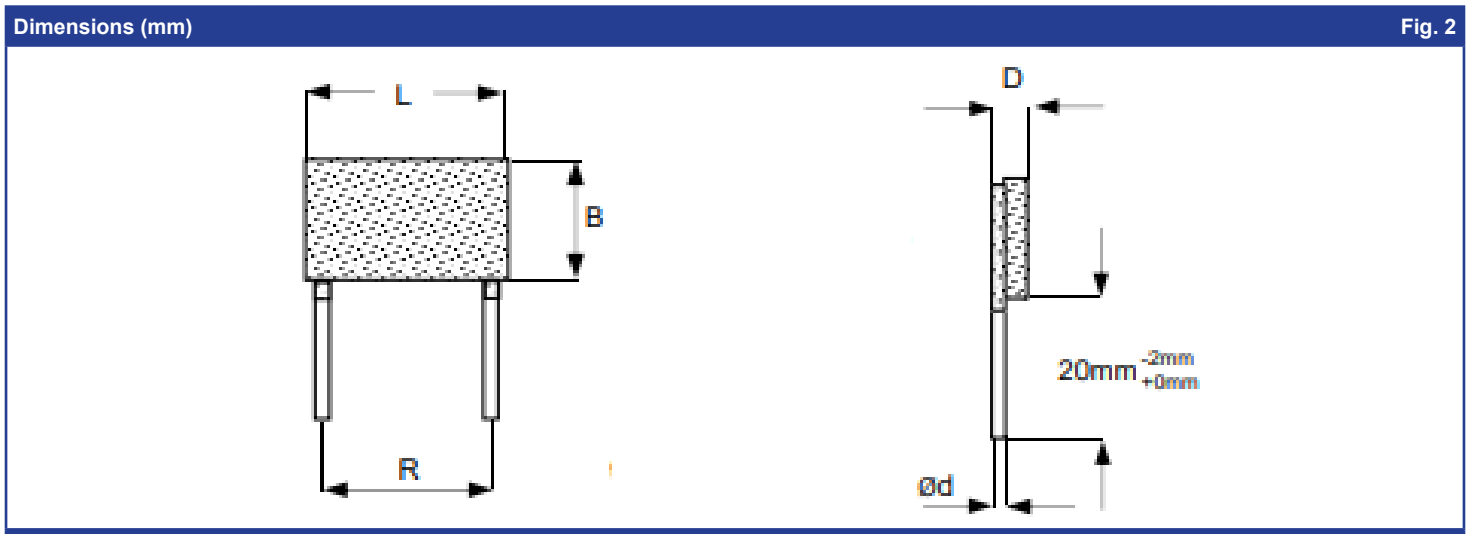
⁴ The silicone coating is resistant to most solvents. For cleaning the use of isopropyl alcohol (IPA) is recommended. The use of acetone and methylene chloride is **not** allowed. Mechanical stress to coating should be avoided and high pressure cleaning should not be used. Some cleaning agents can cause discolourations or bleaching to the surface without any influence on the resistor element. The thickness of the coating is not specific. Other data according to EN 140401-802 (CECC 40401-802).

Dimensions (mm)					Table 2
Size	L (Length)	B (Width)	D (Thickness)	R (Std. lead spacing*)	d (Std. wire Ø▼)
1210	20.0	5.0	17.0	17.0	17.0
2512	25.0	9.0	22.9	22.9	22.9
4020	30.0	6.0	27.5	27.5	27.5

* Other spacing possible by bending.

▼Other diameters possible.

Tolerance of dimensions $\pm 0.5\text{mm}$.



Packaging

Bulk in plastic bags

Minimum quantities: 30 pieces per value

Example Ordering Code

L X R 4 0 2 0 T 1 0 G K 1 0 0

Series	Case Size	Trimming	Resistance Ω	Tolerance $\pm \%$ (See table 1)	Temperature Coefficient TCR
LXR	1210, 2512, 4020	T = Trimmed U = Untrimmed	1M - 1T	B ± 0.1 F ± 1 K ± 10 C ± 0.25 G ± 2 M ± 20 D ± 0.5 J ± 5 N ± 30	25 to 1000ppm (See table 1)

NB: Standard TCR will be the highest value in the table unless otherwise requested. Measuring voltage will be 10V. Other voltages are available - specific requirements must be requested.