

GST-Series

High Value Resistors, radial leaded

Sizes: 1210, 2512, 4020

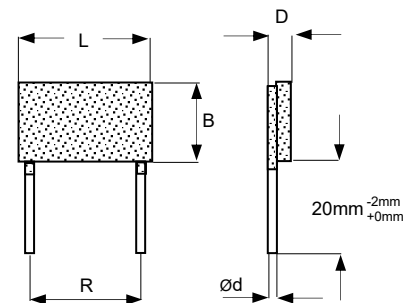
Features:

- High value resistors in thick film technology
- Resistance values up to 1 Tera-Ohm
- Excellent values of tolerance, temperature coefficient and VCR
- Untrimmed for higher working voltage
- Variable lead spacing
- Climatic protection by Silicone coating (conformal coating)
- Non-magnetic



Dimensions:

Size		L (mm)	B (mm)	D (mm)	R (mm)	d (mm)
Imperial (Standard)	Metric (ref. only)	length	width	thickness	lead spacing	wire diameter
1210	3225	3.2 ±0.5	2.5 ±0.5	0.9 ±0.5	2.0 ±0.5	0,4 ±0,05
2512	6332	6.3 ±0.5	3.5 ±0.5	1.0 ±0.5	5.5 ±0.5	0,4 ±0,05
4020	10050	10.2 ±0.5	5.1 ±0.5	1.0 ±0.5	9.5 ±0.5	0,4 ±0,05



Wire diameter: other diameters on request
 Lead spacing: other lead spacing possible by bending

Packaging:

Bulk in plastic bags
 Minimum quantity: 30 pieces per value

Ordering Data:

Type – value – tolerance – temperature coefficient TCR

Example: *GST 4020 10G ±10% TCR100*

Untrimmed parts are indicated by the extension “NA” in the order code:

Type – NA – value – tolerance – temperature coefficient TCR

Example: *GST 4020-NA 10G ±10% TCR100*

If no requirement for TCR is given, the standard value (highest value in table) will be supplied.
 Standard measuring voltage is 10V (50V for values >1G). Different voltages on request and agreement (specify explicitly).

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Sizes: 1210, 2512, 4020

Technical data – depending on size:

Size	1210	2512	4020
Power Rating P ₇₀ (W) (P ₁₂₅ = 0W)	0.5	1.0	2.0
Working Voltage U ₋ , U _{eff} (V) ³⁾ trimmed untrimmed (Tol. ≥ 5%)	800 1200	2000 3000	4000 6000

Ranges / Tolerances / Temperature coefficient TCR ¹⁾ / VCR ²⁾			
1M – 100M	0.5/1/2/5/10% TCR 25/50/100 50 ppm/V	0.5/.../10% TCR 25/50/100 10 ppm/V	0.25/.../10% TCR 25/50/100 5 ppm/V
>100M – 500M	2/5/10/20% TCR 50/100/250 100 ppm/V	1/2/5/10/20% TCR 25/50/100 25 ppm/V	0.5/1/2/5/10/20% TCR 25/50/100 10 ppm/V
>500M – 1G	5/10/20% TCR 100/250 100 ppm/V	1/2/5/10/20% TCR 100/250 25 ppm/V	1/2/5/10/20% TCR 25/50/100 10 ppm/V
>1G – 10G	5/10/20/30% TCR 250/500 250 ppm/V	2/5/10/20% TCR 100/250 100 ppm/V	2/5/10/20% TCR 50/100 25 ppm/V
>10G – 100G	5/10/20/30% TCR 500/1000 500 ppm/V	5/10/20/30% TCR 250/500 250 ppm/V	5/10/20/30% TCR 100/250 100 ppm/V
>100G – 1T	–	10/20/30/50 TCR 1000 500 ppm/V	5/10/20/30% TCR 500 250 ppm/V

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

Lower values of tolerance, TCR and VCR as well as higher resistance values on request and agreement

Technical data – general:

Operating temperature range	-55°C ... +150°C
Climatic category acc. to EN 60068-1	55/150/56
Humidity- / contact protection	Silicone conformal coating ⁴⁾
Moisture Sensitivity Level acc. to J-STD-020	MSL 1 (unlimited)

Long term stability	≤1G	≤10G	>10G
Storage 125°C/1000h	<1%	<2%	<5%
Max voltage/1000h	<0.5%	<1%	<2%

⁴⁾ 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, no use of high pressure cleaning. Other data according to EN 140401-802 (CECC 40401-802).