



Radial lead metal thin film chip resistors (the highest reliability and precision)

■ LRG series

Features

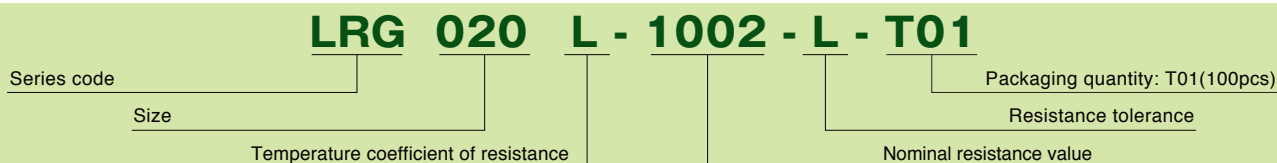
- Most reliable and the highest precision radial read thin film resistor
- The tightest resistance tolerance: +/-0.01%, the smallest temperature coefficient of resistance: ±1ppm/°C

Applications

- Industrial measurement, electrical scales
- High precision sensors, medical electronics



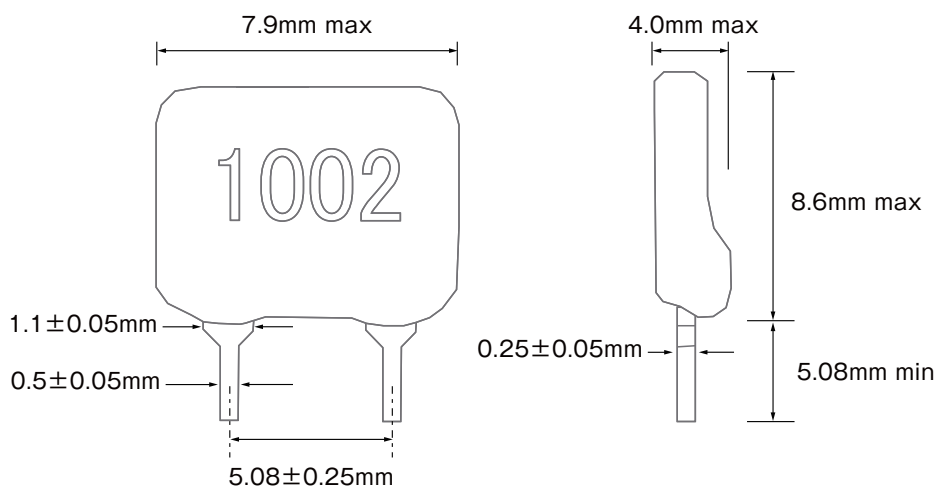
◆ Part numbering system



◆ Electrical Specification

Type	Lead pitch (mm)	Power ratings	Temperature coefficient of resistance (ppm/°C)	Resistance range(Ω) Resistance tolerance				Maximum voltage	Resistance value series	Operating temperature	Packaging quantity
				±0.01% (L)	±0.02% (P)	±0.05% (W)	±0.5% (D)				
LRG020	5.08	0.3W	±1 (K) ±2 (L) ±5 (V)	100 ≤ R ≤ 100k				250V	E-24, E-96	-55°C ~ 125°C	100pcs

◆ Dimensions



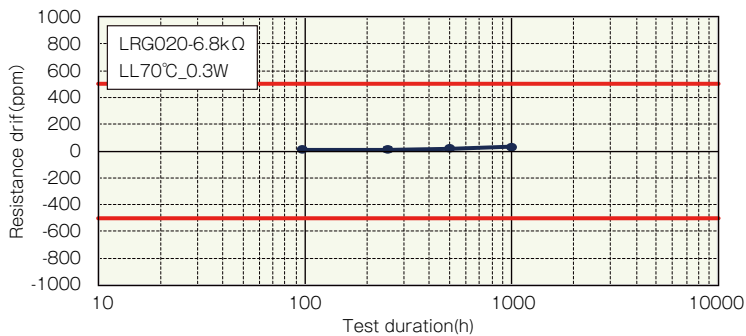
◆ Reliability specification

Test items	Condition (test methods (MIL-PRF-55342/JIS C5201-1))	Standard
Short time overload	2.5 x rated voltage, ^{*1} 5seconds	±0.05%+0.01Ω
Life (biased)	70°C, rated voltage, ^{*1} 90min on 30min off, 2000hours	±0.05%+0.01Ω
High temperature high humidity	85°C, 85%RH, 1/10 of rated power, 90min on 30min off, 2000hours	±0.05%+0.01Ω
Temperature shock	-65°C (15min) ~ 150°C (15min) 100cycles	±0.05%+0.01Ω
High temperature exposure	155°C, no bias, 1000hours	±0.05%+0.01Ω
Resistance to soldering heat	260±5°C, 10 seconds (reflow)	±0.05%+0.01Ω

*1 Rated voltage is given by $E = \sqrt{R \times P}$
 E= rated voltage (V), R=nominal resistance value(Ω), P=rated power(W)
 If rated voltage exceeds maximum voltage /element, maximum voltage/element is the rated voltage.

◆ Reliability test data

○ Biased life test



Resistors with radial leads

LRG series

◆ Derating Curve

