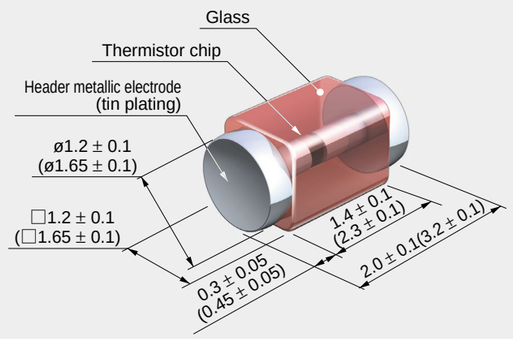
KG2 , KG3 THERMISTOR

Highly reliable SMT device

The KG is a chip thermistor that has been developed in response to the requirements for a thermistor with high reliability. A square glass and header metallic electrodes are used, so the KG offers reduced deterioration with age, as well as superior soldering and mounting.

Appearance / Dimensions / Structure



( ) = KG3
(Unit : mm)

Features

- There are two types of KG to choose from, the KG3 (3216) and KG2 (2012), depending on your intended use.
- The electrode is not film, but instead a metalic body with solder plated, so there is no solder leaching or electrode pealing.
- Square glass is used, so there is no misalignment during insertion or mounting defect, such as omission.

Applications

KG thermistors are suitable for the following temperature measurements with SMT.

- Temperature compensation in electronic components, such as crystal oscillators, hybrid integrated circuits and transistors
- Temperature compensation for surface-mounted general electronic circuit components
- Temperature control in printers and thermal heads, etc.
- Over-charging prevention in mobile communication batteries
- Over-charging prevention in audiovisual equipment batteries
- Brightness adjustment voltage control for liquid crystal displays
- Temperature sensors in general measurement and control devices, as well as precision equipment

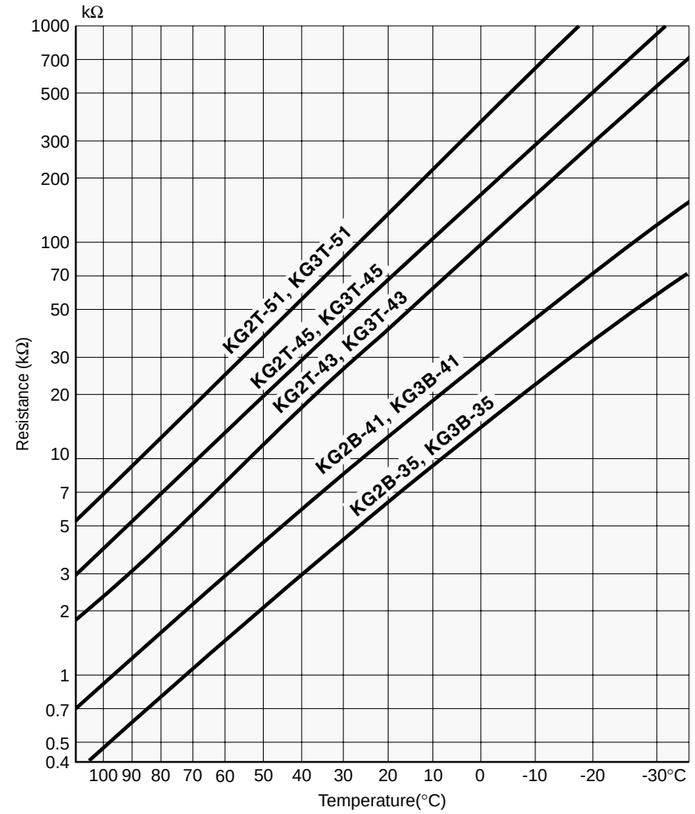
Rated Values

	KG3	KG2
Operating temperature range :	-50°C - +200°C	-50°C - +200°C
Thermal time constant τ :	Approx. 10 sec	Approx. 5 sec
Dissipation constant δ :	Approx. 1.4mW/°C	Approx. 1.3mW/°C
Soldering heat resistance:	3 sec. at 350°C	3 sec. at 350°C

Product name		Nominal resistance value note (1)	B constant
KG3B-35	KG2B-35	13.72 kΩ (0°C) 5 kΩ(25°C)	3375K ± 2% (25 ~ 50°C)
KG3B-41	KG2B-41	28.08 kΩ (0°C) 10 kΩ(25°C)	3450K ± 2% (25 ~ 50°C)
KG3T-43	KG2T-43	98.90 kΩ (0°C) 30 kΩ(25°C)	3950K ± 2% (25 ~ 50°C)
KG3T-45	KG2T-45	164.8 kΩ (0°C) 50 kΩ(25°C)	3950K ± 2% (25 ~ 50°C)
KG3T-51	KG2T-51	332.3 kΩ (0°C) 100 kΩ(25°C)	4000K ± 2% (25 ~ 50°C)

Note (1): Resistance value tolerance: ± 3%, ± 5%

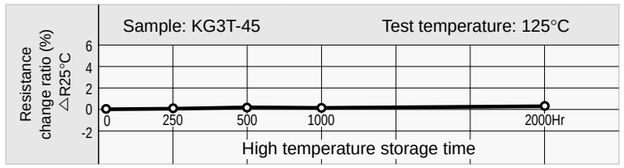
Resistance - Temperature Characteristics



Reliability Data

- Heat resistance test

(average value of n = 10 / substrate mounting test)



- Humidity load test

(average value of n = 10 / substrate mounting test)