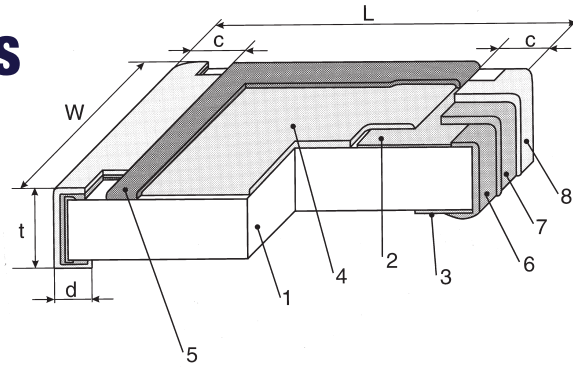


THERMAL SENSORS
LINEAR PTC
THICK FILM
LA 73



STRUCTURE

- 1 Ceramic substrate
- 2 Top termination
- 3 Bottom termination
- 4 Thick film resistor element
- 5 Protective layer
- 6 End termination
- 7 Diffusion barrier (Ni)
- 8 Solder plating

IDENTIFICATION

| PRODUCT CODE | COATING COLOR | MARKING |
|--------------|---------------|-----------------|
| LA73 1J | Orange | No marking |
| LA73 2A, 2B | | Black, 3 digits |

Products with Pb-free terminations meet EU-RoHS requirements

TYPE DESIGNATION (HOW TO ORDER)

| LA73 | 1J | T | TD | 122 | J | 1200 | Contact us when you have control request for environmental hazardous material other than the substance specified by EU-RoHS |
|--------------|---------------------|--|--|-----------------------------------|-------------------------------------|-------------------------------|---|
| PRODUCT CODE | STYLE 1J, 2A, 2B | TERMINATION SURFACE MATERIAL T: Sn (L: Sn/Pb) | TAPING* TD, BK *Please see "PACKAGING" | NOMINAL RESISTANCE 3 digits | RESISTANCE TOLERANCE J: (±5%) | T.C.R. (ppm/K) 4 digits | |

FEATURES

- Resistance value changes in linear positive way to temperature
- Quick response to the change of temperature
- Anti-leaching nickel barrier terminations
- 15 specific temperature coefficients
- Meets or exceeds IEC 60115-8, JIS C 5201-8
- Rated ambient temperature: + 70° C
- Operating temperature range: - 55° C ... + 125° C
- Suitable for reflow and wave soldering

DIMENSIONS (mm)

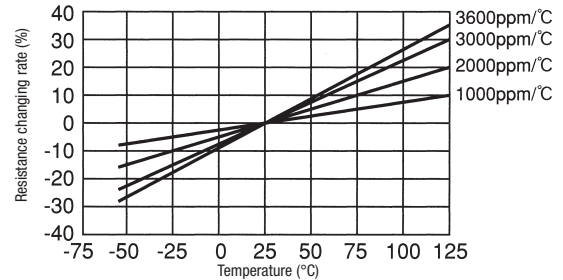
| SIZE | TYPE | L | W | C | d | t ± 0.1 |
|------|---------|-----------|------------|-----------|-----------|---------|
| 0603 | LA73 1J | 1.6 ± 0.2 | 0.8 ± 0.1 | 0.3 ± 0.1 | 0.3 ± 0.1 | 0.45 |
| 0805 | LA73 2A | 2.0 ± 0.2 | 1.25 ± 0.1 | 0.4 ± 0.2 | 0.3 ± 0.1 | 0.5 |
| 1206 | LA73 2B | 3.2 ± 0.2 | 1.6 ± 0.2 | 0.5 ± 0.3 | 0.4 ± 0.1 | 0.6 |

RATING

| SIZE | TYPE | POWER* RATING | THERMAL** DISSIPATION CONSTANT | MAX. WORKING VOLTAGE |
|------|---------|------------------|--------------------------------------|----------------------------|
| 0603 | LA73 1J | 0.063W | 7.6 mW/K | 25 V |
| 0805 | LA73 2A | 0.1W | 8.2 mW/K | 50 V |
| 1206 | LA73 2B | 0.125W | 9 mW/K | 50 V |

* For resistors operated at an ambient temperature of +70°C or above, the power rating shall be derated.
** Thermal dissipation constant are reference values, which are values of elements and vary with connecting or fixing methods.

TEMPERATURE CHARACTERISTICS



TCR AND RESISTANCE RANGE

| T.C.R.* (ppm/K) | T.C.R. TOLERANCE | RESISTANCE RANGE • E12 | | | RESISTANCE TOLERANCE |
|--------------------|---------------------|------------------------|----------------|----------------|-------------------------|
| | | 1J (0603) | 2A (0805) | 2B (1206) | |
| 1000 | ± 200 ppm/K | 1 kΩ ~ 10 kΩ | 1 kΩ ~ 10 kΩ | 1 kΩ ~ 10 kΩ | J (± 5%) |
| 1200 | | 680 Ω ~ 6.8 kΩ | 680 Ω ~ 6.8 kΩ | 680 Ω ~ 6.8 kΩ | |
| 1400 | | 470 Ω ~ 4.7 kΩ | 470 Ω ~ 4.7 kΩ | 470 Ω ~ 4.7 kΩ | |
| 1600 | | 470 Ω ~ 3.9 kΩ | 470 Ω ~ 3.9 kΩ | 470 Ω ~ 3.9 kΩ | |
| 1800 | | 330 Ω ~ 2.7 kΩ | 330 Ω ~ 2.7 kΩ | 330 Ω ~ 2.7 kΩ | |
| 2000 | | 330 Ω ~ 2.7 kΩ | 330 Ω ~ 2.7 kΩ | 330 Ω ~ 2.7 kΩ | |
| 2200 | ± 10% | 220 Ω ~ 1.8 kΩ | 220 Ω ~ 1.8 kΩ | 220 Ω ~ 1.8 kΩ | |
| 2400 | | 220 Ω ~ 1.2 kΩ | 220 Ω ~ 1.2 kΩ | 220 Ω ~ 1.2 kΩ | |
| 2600 | | 100 Ω ~ 1.2 kΩ | 100 Ω ~ 1.2 kΩ | 100 Ω ~ 1.2 kΩ | |
| 2800 | | 100 Ω ~ 390 Ω | 100 Ω ~ 390 Ω | 100 Ω ~ 390 Ω | |
| 3000 | | 68 Ω ~ 220 Ω | 68 Ω ~ 220 Ω | 68 Ω ~ 220 Ω | |
| 3300 | | 33 Ω ~ 120 Ω | 33 Ω ~ 120 Ω | 33 Ω ~ 120 Ω | |
| 3600 | | 22 Ω ~ 82 Ω | 22 Ω ~ 82 Ω | 22 Ω ~ 82 Ω | |

* T.C.R. Measuring Temperature + 25° C / + 75° C
The resistance value of this resistor changes by its self-heating by power applied. Therefore, it is recommended to take its self-heating into consideration. Care must be taken that the resistors may be damaged by occurrence or application of the static electricity in equipment assembling processes. Please contact KOA for special precautions before you order and use this series.

Contact our sales representatives before you use our products for applications including automobiles, medical equipment and aerospace equipment. Malfunction or failure of the products in such applications may cause loss of human life or serious damage.

Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order or use.