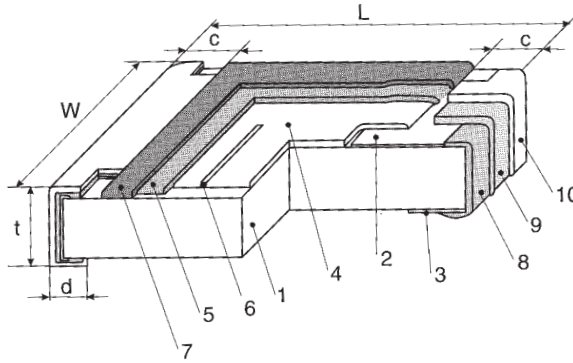
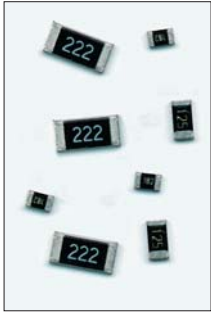


FLAT CHIP
THICK FILM (5% • 2%)
GENERAL PURPOSE
RK73 B



STRUCTURE

| | | | |
|----|----------------------------|--------|----|
| 1 | Ceramic substrate | | |
| 2 | Top termination (Ag Pd) | ~ 11 | µm |
| 3 | Bottom termination (Ag Pd) | ~ 11 | µm |
| 4 | Resistive layer | ~ 11 | µm |
| 5 | Glass layer | ~ 11 | µm |
| 6 | Trimming cut | | |
| 7 | Protective layer | ~ 25 | µm |
| 8 | End termination | ~ 0.05 | µm |
| 9 | Diffusion barrier (Ni) | 3 ~ 12 | µm |
| 10 | Solder plating | 3 ~ 12 | µm |



IDENTIFICATION

| TYPE | COATING COLOR | MARKING |
|-----------------------|---------------|-----------------|
| RK73B 1F ... RK73B 1E | Black | None |
| RK73B 1J ... RK73B 3A | | White, 3 digits |

Products with Pb-free terminations meet RoHS requirements

TYPE DESIGNATION (HOW TO ORDER)

| | | | | | | | |
|------------------------|--------------|------------------|-----------|--|------------------------------------|--------------------------------|-------------------------------|
| Old Part No. | RK73K | 1J | G | | TD | 10K | |
| New Part No. (Pb-free) | RK73B | 1J | | T | TD | 103 | G |
| | PRODUCT CODE | STYLE 1F...3A | TOLERANCE | TERMINATION SURFACE MATERIAL T: Sn L: Sn/Pb (G: Au) | TAPING* *Please see "PACKAGING" | NOMINAL RESISTANCE 3 digits | TOLERANCE J: ±5% G: ±2% |

FEATURES

- RuO₂ thick film resistor element
- Anti-leaching nickel barrier terminations
- Excellent heat resistance and moisture resistance are ensured by the use of metal glaze thick film
- Also available with epoxy bondable, silver-palladium inner terminations in 1J, 2A and 2B sizes (see RK73X series)
- Also available with gold plated electrodes in size 1E, 1J and 2A (10Ω...1MΩ)
- Rated ambient temperature: +70° C
- Taping according to IEC-60 286-3
- Meets or exceeds IEC 60 115, CECC 40 401-802, EIAJ RC-2134A
- Suitable for reflow and wave soldering
- Lab Kit available

DIMENSIONS (mm)

| SIZE | TYPE | L | W | c | d | t |
|-------|------------------|------------|------------|------------|----------------|-------------|
| 01005 | RK73 1F** | 0.4 ± 0.02 | 0.2 ± 0.02 | 0.1 ± 0.03 | 0.1 ± 0.03 | 0.12 ± 0.02 |
| 0201 | RK73 1H | 0.6 ± 0.03 | 0.3 ± 0.03 | 0.1 ± 0.05 | 0.15 ± 0.05 | 0.23 ± 0.03 |
| 0402 | RK73 1E | 1.0 ± 0.05 | 0.5 ± 0.05 | 0.2 ± 0.1 | 0.25 ± 0.05 | 0.35 ± 0.05 |
| 0603 | RK73 1J | 1.6 ± 0.2 | 0.8 ± 0.1 | 0.3 ± 0.1 | 0.3 ± 0.1 | 0.45 ± 0.1 |
| 0805 | RK73 2A | 2.0 ± 0.2 | 1.25 ± 0.1 | 0.4 ± 0.2 | 0.3 ± 0.1 | 0.5 ± 0.1 |
| 1206 | RK73 2B | 3.2 ± 0.2 | 1.6 ± 0.2 | 0.5 ± 0.3 | 0.4 ± 0.2 | 0.6 ± 0.1 |
| 1210 | RK73 2E | | 2.6 ± 0.2 | | 0.4 ± 0.2 | |
| 2010 | RK73 2H | 5.0 ± 0.2 | 2.5 ± 0.2 | | 0.4 ± 0.2 | |
| 2512 | RK73 3A | 6.3 ± 0.2 | 3.1 ± 0.2 | | (0.65 ± 0.15)* | |

* Time of change to (0.65 ± 0.15) will be announced by PCN.

RATING

| SIZE | TYPE | T.C.R. (ppm/K) | POWER* RATING | MAX. WORKING VOLTAGE | MAX. OVERLOAD VOLTAGE | RESISTANCE RANGE (E24) | | OPERATING TEMPERATURE RANGE |
|-----------------|-------------------|----------------|-----------------|----------------------|-----------------------|------------------------|-----------------|-----------------------------|
| | | | | | | G (± 2%) | J (± 5%) | |
| 01005 | RK73B 1F** | ± 250 | 0.03 W | 15 V | 30 V | 10 Ω ... 1MΩ | 10 Ω ... 1MΩ | -55° C ... +125° C* |
| NEW 0201 | RK73B 1H | ± 400 | 0.05 W | 25 V | 50 V | 10 Ω ... 10 MΩ | 10 Ω ... 10 MΩ | |
| 0402 | RK73B 1E | ± 400 | 0.063 W | 50 V | 100 V | 10 Ω ... 10 MΩ | 10 Ω ... 10 MΩ | -55° C ... +155° C* |
| 0603 | RK73B 1J | ± 200 | | | | 0.1 W | 10 Ω ... 10 MΩ | |
| 0805 | RK73B 2A | ± 400 | 0.125 W | 150 V | 200 V | 1 Ω ... 9.1 Ω | 1 Ω ... 9.1 Ω | -55° C ... +155° C* |
| 1206 | RK73B 2B | ± 200 | | | | 0.25 W | 10 Ω ... 1 MΩ | |
| 1210 | RK73B 2E | ± 400 | 0.5 W 0.33 W | 200 V | 400 V | 1 Ω ... 9.1 Ω | 1 Ω ... 9.1 Ω | -55° C ... +155° C* |
| 2010 | RK73B 2H | ± 200 | | | | 0.75 W | 10 Ω ... 5.6 MΩ | |
| 2512 | RK73B 3A | ± 400 | 1 W | 200 V (500 V)** | | 10 Ω ... 5.6 MΩ | 10 Ω ... 5.6 MΩ | |
| | | ± 200 | | | | | | |

* Please note derating diagram
** Under development

Care should be taken that RK73B1F may be damaged when static electricity occurs and is applied in the equipment assembly process

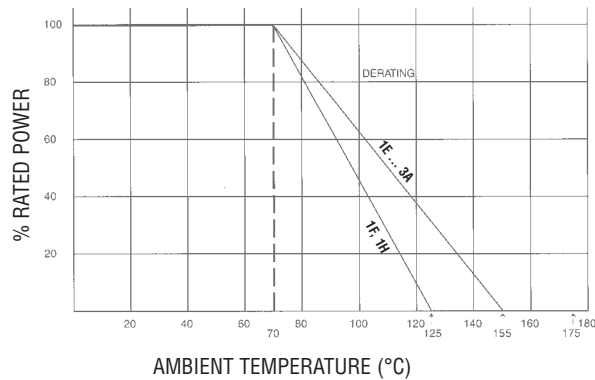
Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use.

**FLAT CHIP
THICK FILM
RK73**

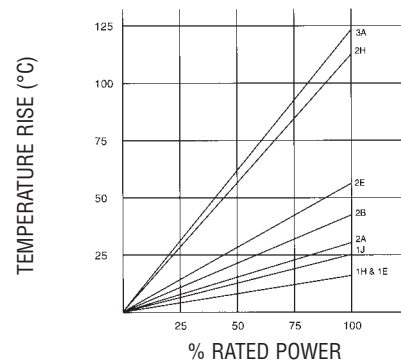
PERFORMANCE

| TEST | TEST CONDITIONS | TYP. TEST RESULTS |
|---|---|--|
| Life test at 70° C rated power (P ₇₀) | IEC 60115-1 4.25.1 70° C ± 3° C, 1000 h; 1.5 h On / 0.5 h Off cycle | ± (1% · R + 0.05 Ω) |
| Rapid change of temperature | IEC 60115-1 4.19 - 55° C (30 min) / + 125° C (30 min); 5 cycles | ± (0.5% · R + 0.1 Ω) |
| Damp heat steady state | IEC 60115-1 4.24 56 days at 40° C and 93% relative humidity | ± (1% · R + 0.05 Ω) |
| Endurance at 125° C | IEC 60115-1 4.25.3 + 125° C / 1000 h | ± (1% · R + 0.05 Ω) |
| Short time overload | IEC 60115-1 4.13 6.25 x rated power for 5 sec., but smaller 2.5 x U _{max} | ± (1% · R + 0.05 Ω) |
| T.C.R. | IEC 60115-1 4.8 Cycle: + 25° C / - 55° C / + 25° C / + 125° C / + 25° C | Within specified T.C.R. |
| Bending test | IEC 60115-1 4.31 Bending: 5 mm (1J, 2A, 2B); 3 mm (1H, 1E); 2 mm (2E, 2H, 3A) | ± (0.5% · R + 0.05 Ω) |
| Solderability | IEC 60068-2-20 235 ± 5° C / 2 ± 0.5 sec. | Terminations > 95% covered with new solder |
| Resistance to soldering heat | IEC 60115-1 4.18 10 ± 1 sec. at 260 ± 5° C solder bath temperature | ± (0.5% · R + 0.05 Ω) |

DERATING CURVE

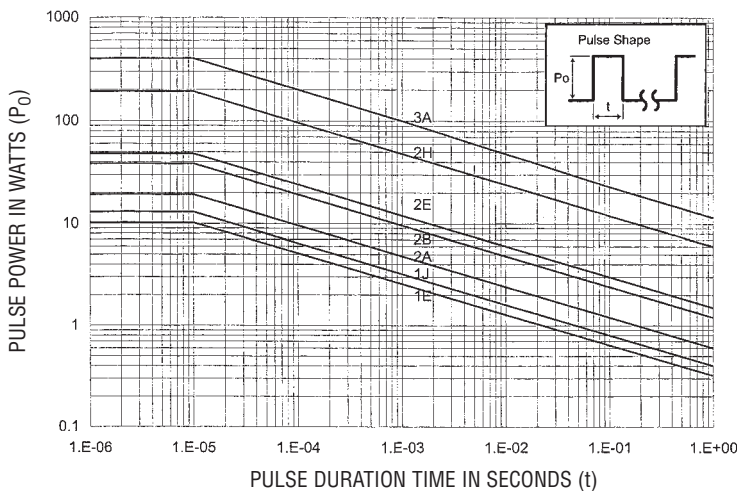


SURFACE TEMPERATURE RISE



ONE-PULSE LIMITING ELECTRIC POWER

KOA RK73 Flat Chip Resistors



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