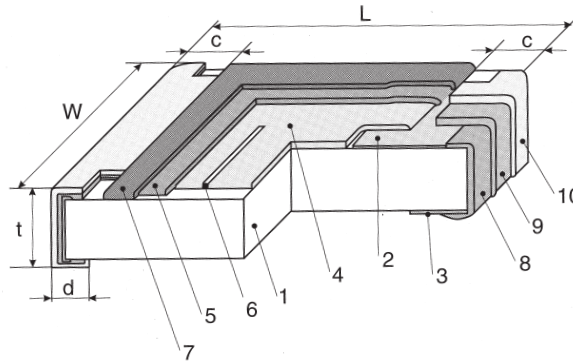
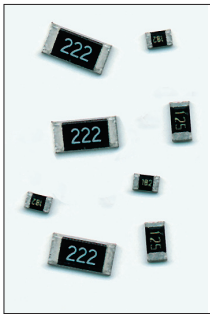


**FLAT CHIP**  
**THICK FILM (5% • 2%)**  
**GENERAL PURPOSE**  
**RK73B**



**STRUCTURE**

- 1 Ceramic substrate
  - 2 Top termination (~ 11 µm)
  - 3 Bottom termination (~ 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 (3 ~ 12 µm)
  - 10 Solder plating (3 ~ 12 µm)
- (Typical values)



**IDENTIFICATION**

TYPE	COATING COLOR	MARKING
RK73B 1F ... RK73B 1E	Black	None
RK73B 1J ... RK73B W3A		White, 3 digits

Products with Pb-free terminations meet EU-RoHS requirements

**TYPE DESIGNATION (HOW TO ORDER)**

RK73B	1J	T	TD	103	J	Contact us when you have control request for environmental hazardous material other than the substance specified by EU-RoHS
PRODUCT CODE	STYLE 1F...W3A	TERMINATION** SURFACE MATERIAL T: Sn (L: Sn/Pb) (G: Au)	TAPING*	NOMINAL RESISTANCE 3 digits	TOLERANCE J: (±5%) G: (±2%)	

\*Please see "PACKAGING"

\*\*Style 1F and 1H are only available in "T"

**FEATURES**

- RuO<sub>2</sub> 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
- High stability and high reliability with the triple-layer structure of electrode
- Also available with gold plated electrodes in size 1E, 1J and 2A (10Ω...1MΩ)
- Rated ambient temperature: +70° C
- AEC-Q200 testdata are available on request
- Taping according to IEC-60 286-3
- Meets or exceeds IEC 60 115-8, JIS C 5201-8, CECC 40 401-802, EIAJ RC-2134B
- Suitable for reflow and wave soldering

**DIMENSIONS (mm)**

SIZE	TYPE	L	W	c	d	t
01005	RK73B 1F	0.4 ± 0.02	0.2 ± 0.02	0.1 ± 0.03	0.11 ± 0.03	0.13 ± 0.02
0201	RK73B 1H	0.6 ± 0.03	0.3 ± 0.03	0.1 ± 0.05	0.15 ± 0.05	0.23 ± 0.03
0402	RK73B 1E	1.0 ± 0.05	0.5 ± 0.05	0.2 ± 0.1	0.25 ± 0.05	0.35 ± 0.05
0603	RK73B 1J	1.6 ± 0.2	0.8 ± 0.1	0.3 ± 0.1	0.3 ± 0.1	0.45 ± 0.1
0805	RK73B 2A	2.0 ± 0.2	1.25 ± 0.1	0.4 ± 0.2	0.3 ± 0.1	0.5 ± 0.1
1206	RK73B 2B	3.2 ± 0.2	1.6 ± 0.2	0.5 ± 0.3	0.4 ± 0.1	0.6 ± 0.1
1210	RK73B 2E		2.6 ± 0.2			
2010	RK73B W2H*	5.0 ± 0.2	2.5 ± 0.2	0.5 ± 0.3	0.65 ± 0.15*	
2512	RK73B W3A*	6.3 ± 0.2	3.1 ± 0.2			

\* RK73B 2H and RK73B 3A are also still available (different "d" dimensions = 0.4 ± 0.2 mm)

**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	± 300	0.03 W	15 V	30 V	10 Ω ... 6.2 kΩ	10 Ω ... 6.2 kΩ	- 55° C ... + 125° C*
						6.8 kΩ ... 1 MΩ	6.8 kΩ ... 1 MΩ	
0201	RK73B 1H	± 400	0.05 W	25 V	50 V	—	1 Ω ... 9.1 Ω	
						10 Ω ... 10 MΩ	10 Ω ... 10 MΩ	
0402	RK73B 1E	± 200	0.063 W	50 V	100 V	1 Ω ... 10 MΩ	1 Ω ... 10 MΩ	
						—	11 MΩ ... 22 MΩ	
0603	RK73B 1J	± 400	0.1 W	150 V	200 V	1 Ω ... 10 MΩ	1 Ω ... 10 MΩ	
						1.1 MΩ ... 10 MΩ	1.1 MΩ ... 10 MΩ	
0805	RK73B 2A	± 400	0.125 W	200 V	400 V	1 Ω ... 1 MΩ	1 Ω ... 1 MΩ	
						6.2 MΩ ... 10 MΩ	6.2 MΩ ... 22 MΩ	
1206	RK73B 2B	± 400	0.25 W	200 V	400 V	1 Ω ... 5.6 MΩ	1 Ω ... 5.6 MΩ	
						—	6.2 MΩ ... 10 MΩ	
1210	RK73B 2E	± 400	0.33 W	200 V	400 V	10 Ω ... 1 kΩ	1 Ω ... 1 kΩ	
						1.1 kΩ ... 5.6 MΩ	1.1 kΩ ... 5.6 MΩ	
2010	RK73B W2H	± 400	0.75 W	200 V	400 V	—	6.2 MΩ ... 22 MΩ	
						10 Ω ... 5.6 MΩ	1 Ω ... 5.6 MΩ	
2512	RK73B W3A	± 400	1 W	200 V (500 V)**	400 V (500 V)**	—	6.2 MΩ ... 22 MΩ	
						10 Ω ... 5.6 MΩ	1 Ω ... 5.6 MΩ	

Rated voltage = √ Power rating x resistance value or max. working voltage, whichever is lower.

\* For resistors operated in ambient temperature over +70°C, power rating shall be derated like shown in „DERATING CURVE“.

\*\* Please contact KOA about the increased max. working voltage and the max. overload voltage marked with ( ).

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

**PREFERRED TOLERANCE**

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.

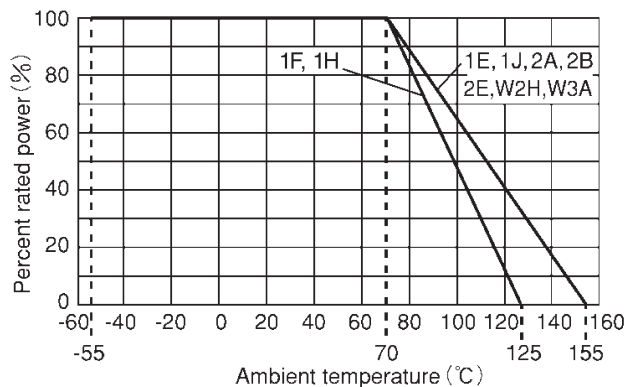
Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order/use.

**FLAT CHIP  
THICK FILM  
RK73**

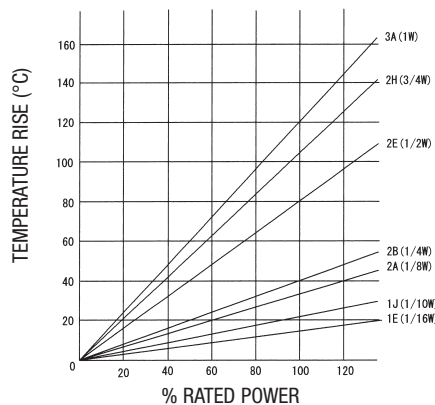
**PERFORMANCE**

TEST	TEST CONDITIONS	TYPICAL TEST RESULTS
Life test at 70° C rated power (P <sub>70</sub> )	IEC 60115-1 4.25.1 70° C ± 2° C, 1000 h; 1.5 h On / 0.5 h Off cycle	1J, 2A, 2B: ΔR ± (0.75% + 0.05 Ω) all others: ΔR ± (1% + 0.05 Ω)
Rapid change of temperature	IEC 60115-1 4.19 -55° C (30 min) / +125° C (30 min); 100 cycles	1F: ΔR ± (0.5% + 0.05 Ω) all others: ΔR ± (0.3% + 0.05 Ω)
Damp heat steady state	IEC 60115-1 4.24 40° C ± 2° C; 90%...95% RH; 1000h	1F: ΔR ± (1.5% + 0.05 Ω) 1J, 2A, 2B: ΔR ± (0.75% + 0.05 Ω) all others: ΔR ± (1% + 0.05 Ω)
High temperature exposure	IEC 60115-1 4.25.3 +125° C / 1000h (1F, 1H); +155° C / 1000h (1E...W3A)	1F: ΔR ± (0.5% + 0.05 Ω) all others: ΔR ± (0.3% + 0.05 Ω)
Short time overload	IEC 60115-1 4.13 Rated voltage x 2.5 for 5 sec. 2B: Rated voltage x 2 for 5 sec.	1F: ΔR ± (1% + 0.05 Ω) all others: ΔR ± (0.5% + 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)	ΔR ± (0.5% + 0.1 Ω)
Resistance to soldering heat	IEC 60115-1 4.18 10 ± 1 sec. at 260 ± 5° C solder bath temperature	1F, 1H (10 Ω ≤ R ≤ 1MΩ): ΔR ± (0.75% + 0.05 Ω) 1E~W3A (R < 10 Ω, R > 1MΩ): ΔR ± (1% + 0.05 Ω) all others: ΔR ± (0.5% + 0.05 Ω)

**DERATING CURVE**

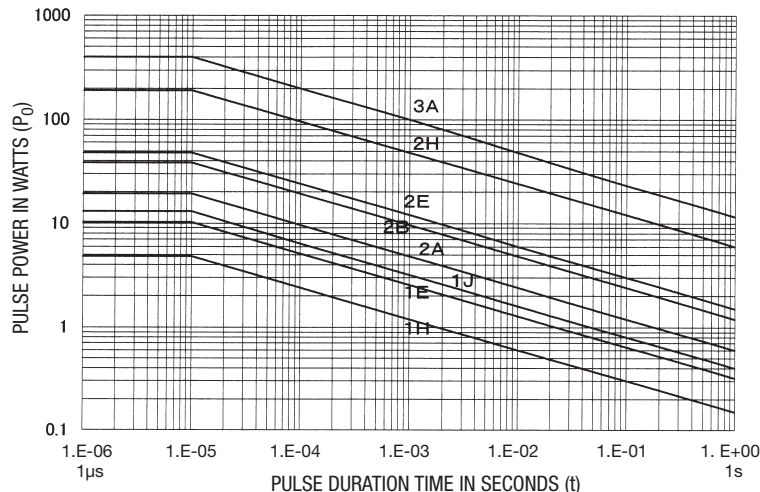


**SURFACE TEMPERATURE RISE**



**ONE-PULSE LIMITING ELECTRIC POWER**

KOA RK73 Flat Chip Resistors (Diagram for reference only)



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.