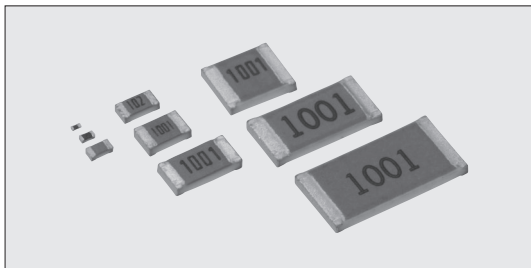


THICK FILM (PRECISION)

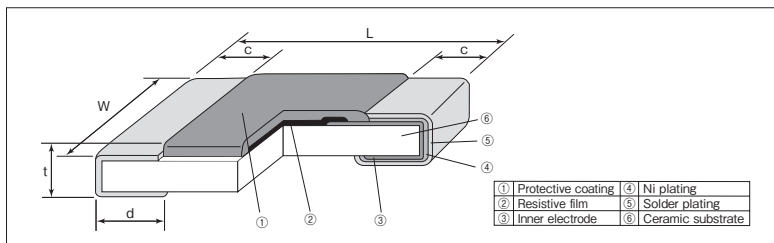


RK73H Flat Chip Resistors (Precision Grade)



Coating color : Black (1F, 1H),
Blue (1E, 1J, 2A, 2B, 2E, W2H, W3A, W3A2)

Construction



Dimensions

Type (Inch Size Code)	Dimensions (mm)					Weight (g, (1000pcs)
	L	W	c	d	t	
1F (01005)	0.4±0.02	0.2±0.02	0.10±0.03	0.11±0.03	0.13±0.02	0.04
1H (0201)	0.6±0.03	0.3±0.03	0.1±0.05	0.15±0.05	0.23±0.03	0.14
1E (0402)	1.0 ^{+0.1 -0.05}	0.5±0.05	0.2±0.1	0.25 ^{+0.05 -0.1}	0.35±0.05	0.68
1E AT (0402)			0.25±0.1	0.3±0.15		
1J (0603)	1.6±0.2	0.8±0.1	0.3±0.1	0.3±0.1	0.45±0.1	2.14
1J AT (0603)			0.35±0.15	0.5±0.2		
2A (0805)	2.0±0.2	1.25±0.1	0.4±0.2	0.3 ^{+0.2 -0.1}	0.5±0.1	4.54
2A AT (0805)			0.45±0.25	0.6±0.2	0.55±0.1	
2B (1206)	3.2±0.2	1.6±0.2	0.5±0.3	0.4 ^{+0.2 -0.1}	0.6±0.1	9.14
2B AT (1206)			0.55±0.35	0.8±0.2		
2E (1210)	5.0±0.2	2.6±0.2	0.5±0.3	0.4 ^{+0.2 -0.1}		15.5
W2H (2010) ^{※1}				0.65±0.15		
W3A (2512) ^{※1}	6.3±0.2	3.1±0.2		37.1		
W3A2 (2512) ^{※1}						

*1 RK73H 2H, 3A and 3A2 are also still available (different "d" dimensions=0.4^{+0.2}_{-0.1}mm)

Features

- Wide lineup from 01005 to 2512 size.
- Excellent heat resistance and weather resistance are ensured by the use of metal glaze thick film.
- Suitable for both flow and reflow solderings.
- Products with lead free termination meet EU-RoHS requirements. EU-RoHS regulation is not intended for Pb-glass contained in electrode, resistor element and glass.
- AEC-Q200 Tested (Exemption 1F).

Reference Standards

IEC 60115-8
JIS C 5201-8
EIAJ RC-2134C

Type Designation

Example

RK73H	2B		T	TD	1002	F
Product Code	Power Rating	Characteristic	Terminal Surface Material	Taping	Nominal Resistance	Resistance Tolerance
	1F : 0.03W 1H : 0.05W 1E : 0.1W 1J : 0.1W 0.125W 2A : 0.25W 2B : 0.25W 2E : 0.5W W2H : 0.75W W3A : 1W W3A2 : 2W ^{#5}	Nil : Standard A : Heat shock resistance ^{#2}	T : Sn G : Au ^{#3} (L : Sn/Pb ^{#4})	TX : 4mm width-1mm pitch plastic embossed TBL : TOL : 2mm pitch press paper TPL : TP : 2mm pitch punch paper TD : 4mm pitch punch paper TE : 4mm pitch plastic embossed BK : Bulk	4 digits	D : ±0.5% F : ±1%

*2 With type A (1E, 1J, 2A, 2B) only T is available as the terminal surface material.

No resistance marking.

*3 Products with gold plated electrodes are also available with 1E, 1J and 2A types (10Ω~1MΩ) , so please consult with us.

*4 With type 1F, 1H, W2H, W3A, W3A2 only T is available as the terminal surface material.

The terminal surface material lead free is standard.

Contact us when you have control request for environmental hazardous material other than the substance specified by EU-RoHS. For further information on taping, please refer to APPENDIX C on the back pages.

Ratings

Type	Power Rating	Rated Ambient Temp.	Rated Terminal Part Temp.	T.C.R. (×10 ⁻⁴ /K)	Resistance Range (Ω)		Max. Working Voltage	Max. Overload Voltage	Packaging & Q'ty/Reel (pcs)									
					D:±0.5% E24・E96	F:±1% E24・E96			TX	TBL	TCM ^{#3}	TPL・TP	TD	TE				
1F	0.03W	70℃	—	±200 ±250	—	100k~2M ^{#5} 10~91k ^{#5}	20V	30V	40,000	20,000	—	—	—	—				
1H	0.05W	70℃	125℃	±200 ±400	10~1M —	10~10M ^{#5} 1~9.1 ^{#5}	25V	50V	—	—	15,000	—	—	—				
1E	0.1W	70℃	125℃	±100 ±200	10~1M —	10~1M 1~9.76 1.02M~10M	75V	100V	—	—	—	TPL:20,000 TP :10,000	—	—				
1J	0.1W	70℃	125℃	±100 ±200	1.02k~1M —	1.02k~1M 1.02M~10M			—	—	—	TP :10,000 ^{#7}	5,000	—				
	0.125W			±100 ±200	10~1k —	10~1k 1~9.76			—	—	—							
				±100 ±200	10~1M —	10~1M 1~9.76			—	—	—							
2A	0.25W	70℃	125℃	±100 ±200 ±400	10~1M —	10~1M 1~9.76 1.02M~10M	150V	200V	—	—	—	TP :10,000 ^{#7}	5,000	4,000 ^{#3}				
2B	0.25W	70℃	125℃	±100 ±200 ±400	10~1M —	10~1M 1~9.76 1.02M~5.6M 5.62M~10M	200V	400V	—	—	—	—	5,000	4,000 ^{#3}				
				2E	0.5W	70℃			125℃	±100 ±200 ±400	10~1M —	10~1M 1~9.76 1.02M~5.6M 5.62M~10M	—	—	—	—	5,000	4,000 ^{#3}
										W2H	0.75W	70℃	125℃	±100 ±200 ±400	10~1M —	10~1M 1~9.76 1.02M~5.6M 5.62M~10M	—	—
W3A	1W	70℃	125℃											±100 ±200 ±400	10~1M —	10~1M 1~9.76 1.02M~5.6M 5.62M~10M	—	—
				W3A2	2W ^{#6}	70℃			95℃					±100 ±200 ±400	10~1M —	10~1M 1~9.76 1.02M~5.6M 5.62M~10M	—	—

Operating Temperature Range : -55°C~+125°C (1F), -55°C~+155°C (1H · 1E · 1J · 2A · 2B · 2E · W2H · W3A · W3A2)

Rated voltage=√Power Rating×Resistance value or Max. working voltage, whichever is lower.

For flat chip jumper resistor, please refer to RK73Z series.

*5 The nominal resistance value for RK73H1F (100≤R≤2MΩ) and RK73H1H (1Ω≤R≤9.1Ω, 1MΩ≤R≤10MΩ) is E24.

*6 If you use at the rated power, please keep the condition that the terminal of the resistor is below the rated terminal part temperature. Please refer to the derating curves based on the terminal temperature of right side on the next page.

*7 Standard packaging : TD(4mm pitch punch paper)

*8 Standard taping specification of 1H is TCM. Previously available "TC(10,000pcs/Reel)" is not recommended for new designs.

If any questions arise whether to use the "Rated Ambient Temperature" or the "Rated Terminal Part Temperature" in your usage conditions, please give priority to the "Rated Terminal Part Temperature".

For more details, please refer to "Introduction of the derating curves based on the terminal part temperature" on the beginning of our catalog.

While using under high power, the temperature of the product may increase depending on the condition of heat dissipation from PCB.

Be sure to check the terminal part temperature as well as precautions to use on delivery specifications before use.

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

Oct. 2024

www.koaglobal.com

