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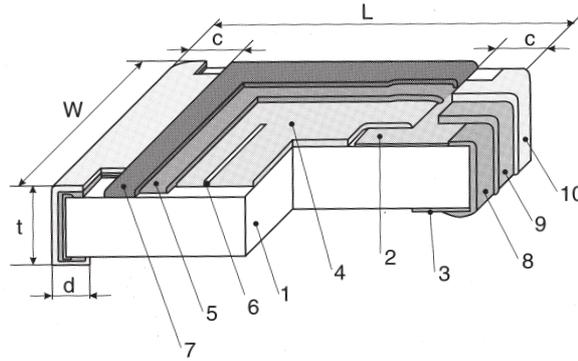
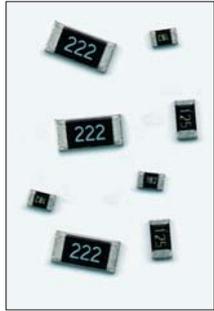
JAMECO[®]
ELECTRONICS

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Jameco Part Number 1881399

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)	~ 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*	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
NEW 01005	RK73 1F	0.4 ± 0.02	0.2 ± 0.02	0.08 ± 0.03	0.11 ± 0.03	0.13 ± 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 + 0.1 - 0.05	0.5 ± 0.05	0.2 ± 0.1	0.25 + 0.05 - 0.1	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 + 0.2 - 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 - 0.1	0.6 ± 0.1
1210	RK73 2E		2.6 ± 0.2		0.4 + 0.2 - 0.1	
2010	RK73 2H	5.0 ± 0.2	2.5 ± 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%)	
NEW 01005	RK73B 1F	± 300 ± 250	0.03 W	15 V	30 V	10 Ω ... 6.2 kΩ 6.8 kΩ ... 1 MΩ	10 Ω ... 6.2 kΩ 6.8 kΩ ... 1 MΩ	- 55° C ... + 125° C*
0201	RK73B 1H	± 400 ± 200	0.05 W	25 V	50 V	— 10 Ω ... 10 MΩ	1 Ω ... 9.1 Ω 10 Ω ... 10 MΩ	
0402	RK73B 1E	± 400 ± 200	0.063 W	50 V	100 V	— 10 Ω ... 10 MΩ	1 W ... 9.1 W 10 Ω ... 10 MΩ	
0603	RK73B 1J	± 400 ± 200	0.1 W			10 Ω ... 10 MΩ	10 Ω ... 10 MΩ	
0805	RK73B 2A	± 400 ± 200	0.125 W	150 V	200 V	1 Ω ... 9.1 Ω 1.1 MΩ ... 10 MΩ	1 Ω ... 9.1 Ω 1.1 MΩ ... 10 MΩ	- 55° C ... + 155° C*
1206	RK73B 2B	± 400 ± 200	0.25 W	200 V	400 V	10 Ω ... 1 MΩ	10 Ω ... 1 MΩ	
1210	RK73B 2E	± 400 ± 200	0.5 W 0.33 W 0.5 W 0.33 W			1 Ω ... 9.1 Ω 6.2 MΩ ... 10 MΩ	1 Ω ... 9.1 Ω 6.2 MΩ ... 22 MΩ	
2010	RK73B 2H	± 400 ± 200	0.75 W	10 Ω ... 5.6 MΩ	10 Ω ... 5.6 MΩ			
2512	RK73B 3A	± 400 ± 200	1 W	200 V (500 V)**	400 V (500 V)**	1 Ω ... 9.1 Ω 6.2 MΩ ... 22 MΩ	1 Ω ... 9.1 Ω 6.2 MΩ ... 22 MΩ	
						10 Ω ... 5.6 MΩ	10 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.

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

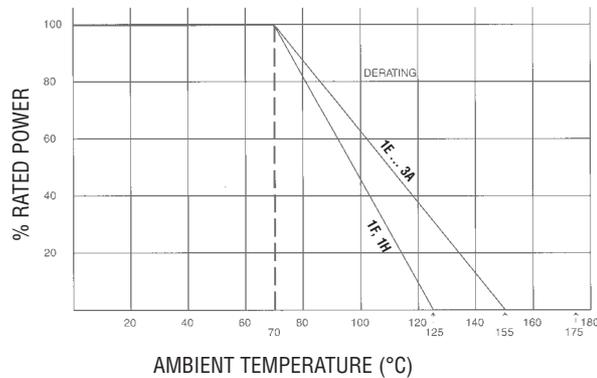
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**FLAT CHIP
THICK FILM
RK73**

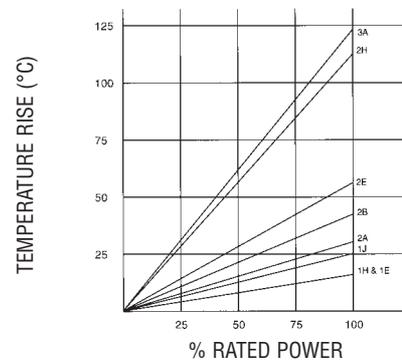
PERFORMANCE

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

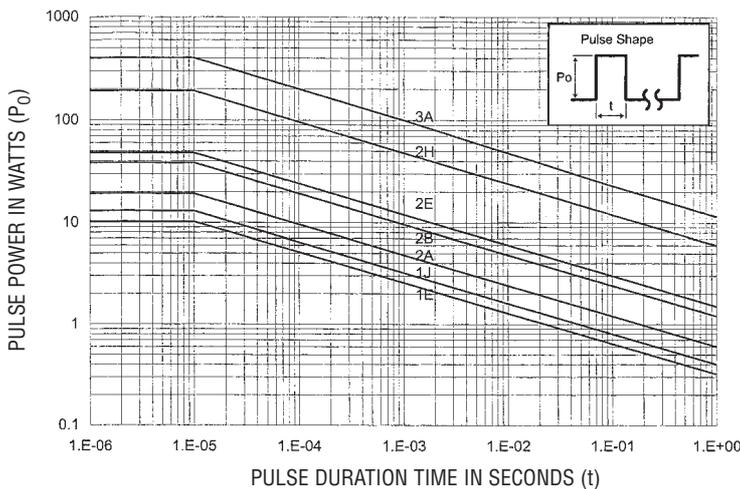


SURFACE TEMPERATURE RISE



ONE-PULSE LIMITING ELECTRIC POWER

KOA RK73 Flat Chip Resistors



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