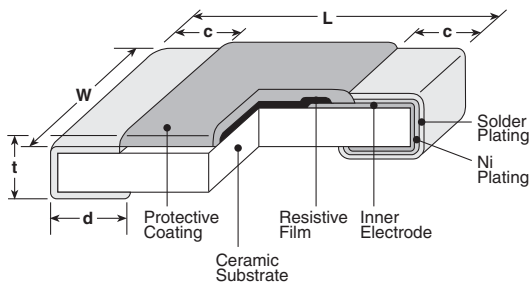


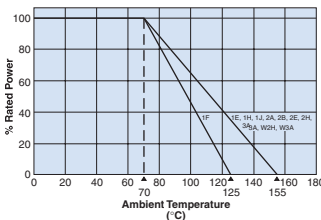
features

- Marking: No marking on 1F, 1H & 1E sizes, black protective coat. White, three-digit marking on 1J ~ 3A on black protective coat.
- Products with lead-free terminations meet EU RoHS requirements. EU RoHS regulation is not intended for Pb-glass contained in electrode, resistor element and glass.
- AEC-Q200 Qualified: 0201 (1H), 0402 (1E), 0603 (1J), 0805 (2A), 1206 (2B), 1210 (2E), 2010 (2H/W2H), 2512 (3A/W3A)

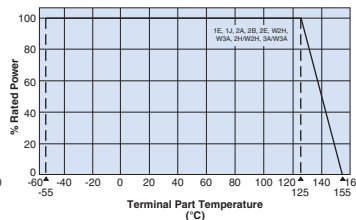
dimensions and construction



Derating Curve



For resistors operated at an ambient temperature of 70°C or above, a power rating shall be derated in accordance with the above derating curve.



For resistors operated at a terminal part temperature of described for each size or above, a power rating shall be derated in accordance with the above derating curve. Please refer to "Introduction of the derating curve based on the terminal part temperature" on the beginning of our catalog before use.

Type* (Inch Size Code)	Dimensions inches (mm)				
	L	W	c	d	t
1F (01005)	.015±.001 (0.4±0.02)	.007±.001 (0.2±0.02)	.004±.001 (0.10±0.03)	.004±.001 (0.11±0.03)	.005±.001 (0.13±0.02)
1H (0201)	.024±.001 (0.6±0.03)	.012±.001 (0.3±0.03)	.004±.002 (0.1±0.05)	.006±.002 (0.15±0.05)	.009±.001 (0.23±0.03)
1E (0402)	.039 ^{+0.04} _{-.002} (1.0 ^{+0.1} _{-.05})	.02±.002 (0.5±0.05)	.008±.004 (0.2±0.1)	.01 ^{+0.02} _{-.004} (0.25 ^{+0.05} _{-.01})	.014±.002 (0.35±0.05)
1J (0603)	.063±.008 (1.6±0.2)	.031±.004 (0.8±0.1)	.012±.004 (0.3±0.1)	.012±.004 (0.3±0.1)	.018±.004 (0.45±0.1)
2A (0805)	.079±.008 (2.0±0.2)	.049±.004 (1.25±0.1)	.016±.008 (0.4±0.2)	.012 ^{+0.08} _{-.004} (0.3 ^{+0.2} _{-.01})	.02±.004 (0.5±0.1)
2B (1206)	.126±.008 (3.2±0.2)	.063±.008 (1.6±0.2)	.02±.012 (0.5±0.3)	.016 ^{+0.08} _{-.004} (0.4 ^{+0.2} _{-.01})	.024±.004 (0.6±0.1)
2E (1210)		.102±.008 (2.6±0.2)			
2H (2010)	.197±.008 (5.0±0.2)	.098±.008 (2.5±0.2)			
W2H (2010)					
3A (2512)	.248±.008 (6.3±0.2)	.122±.008 (3.1±0.2)		.016 ^{+0.08} _{-.004} (0.4 ^{+0.2} _{-.01})	
W3A (2512)				.026±.006 (0.65±0.15)	

* Parentheses indicate EIA package size codes.

ordering information

New Part #	RK73B	2B	T	TD	102	J
Type		Size	Termination Material	Packaging	Nominal Resistance	Tolerance
		1F 1H 1E 1J 2A 2B 2E W2H W3A 2H 3A	T: Sn (1F ~ 3A) Contact factory for below options: L: SnPb (1E, 1J, 2A, 2B, 2E, 2H, 3A) G: Au (1E ~ 2A: 10Ω ~ 1MΩ) X: Bondable (1J ~ 2E: 10Ω ~ 1MΩ)	TX: 01005 only: 4mm width - 1mm pitch plastic embossed TBL: 01005 only: 2mm pitch pressed paper TA: 0201 only: 1mm pitch pressed paper TC: 0201 only: 7" 2mm pitch pressed paper (TC: 10,000 pcs/reel, TCM: 15,000 pcs/reel) TCD: 0201 only: 10" 2mm pitch pressed paper TPD: 0402 only: 10" plastic embossed TPL: 0402 only: 2mm pitch punched paper TP: 0402, 0603 & 0805: 7" 2mm pitch punched paper TD: 0603, 0805, 1206 & 1210: 7" 4mm pitch punched paper TDD: 0603, 0805, 1206 & 1210: 10" paper tape TE: 0805, 1206, 1210, 2010 & 2512: 7" plastic embossed TED: 0805, 1206, 1210, 2010 & 2512: 10" plastic embossed For further information on packaging, please refer to Appendix A	2 significant figures + 1 multiplier "R" indicates decimal on value <10Ω	G: ±2% J: ±5%

general purpose 2%, 5% tolerance thick film chip resistor

applications and ratings

Part Designation	T.C.R. (x10 ⁻⁶ /K)	Power Rating @ 70°C	Resistance Range		Maximum Working Voltage	Maximum Overload Voltage	Rated Terminal Part Temperature	Operating Temperature Range			
			G±2% E-24	J±5% E-24							
RK73B1F (01005)	±200	0.03W	100kΩ - 1MΩ	100kΩ - 1MΩ	20V	30V	—	-55°C to +125°C			
	±250		100Ω - 91kΩ	100Ω - 91kΩ							
	±300		10Ω - 91Ω	10Ω - 91Ω							
	0~+300		1Ω - 9.1Ω	1Ω - 9.1Ω							
RK73B1H (0201)	±200	0.05W	10Ω - 10MΩ	10Ω - 10MΩ	25V	50V		125°C	-55°C to +155°C		
	±400		—	1Ω - 9.1Ω							
RK73B1E (0402)	±200	0.063W (0.1W*)	1Ω - 10MΩ	1Ω - 10MΩ	50V	100V				125°C	-55°C to +155°C
RK73B1J (0603)	±200	0.10W (0.125W*)	1Ω - 10MΩ	1Ω - 10MΩ							
	±400		—	11MΩ - 22MΩ	150V	200V					
RK73B2A (0805)	±200	0.125W (0.25W*)	1Ω - 1MΩ	1Ω - 1MΩ			200V				
	±400		1.1MΩ - 10MΩ	1.1MΩ - 10MΩ							
RK73B2B (1206)	±200	0.25W	1Ω - 5.6MΩ	1Ω - 5.6MΩ	200V	400V					
	±400		6.2MΩ - 10MΩ	6.2MΩ - 22MΩ							
RK73B2E (1210)	±200	0.50W	10Ω - 1kΩ	1Ω - 1KΩ				200V	400V		
	±400	0.33W (0.5W*)	1.1kΩ - 5.6MΩ	1.1KΩ - 5.6MΩ							
			—	6.2MΩ - 10MΩ							
RK73BW2H/2H (2010)	±200	0.75W	10Ω - 5.6MΩ	1Ω - 5.6MΩ			200V (500V*)			400V (500V*)	
	±400		—	6.2MΩ - 22MΩ							
RK73BW3A/3A (2512)	±200	1.0W	10Ω - 5.6MΩ	1Ω - 5.6MΩ							200V (500V*)
	±400		—	6.2MΩ - 22MΩ							

Rated ambient temperature: +70°C

Rated voltage = $\sqrt{\text{Power rating} \times \text{resistance value}}$ or max. working voltage, whichever is lower

* Please refer to the "Higher Power Ratings" statement in the beginning of the catalog. Also, contact KOA prior to usage and for the max. working voltage and max. overload voltage.

environmental applications

Performance Characteristics

Parameter	Requirement ΔR (%+0.1 Ω)		Test Method
	Limit	Typical	
Resistance	Within specified tolerance	—	25°C
T.C.R.	Within specified T.C.R.	—	+25°C/-55°C and +25°C/+125°C
Overload (Short time)	$\pm 2\%$	$\pm 1\%$: 1F $\pm 0.5\%$: Another	Rated Voltage x 2.5 for 5 seconds (2B: Rated Voltage x 2 for 5 seconds)
Resistance to Soldering Heat	$\pm 1\%$: 1F-W3A (10 $\Omega \leq R \leq 1M\Omega$) $\pm 3\%$: 1F-W3A (R<10 Ω , R>1M Ω)	$\pm 0.5\%$: 1F-W3A (10 $\Omega \leq R \leq 1M\Omega$); $\pm 1\%$: 1F-W3A (R<10 Ω , R>1M Ω)	260°C $\pm$ 5°C, 10 seconds $\pm$ 1 second
Rapid Change of Temperature	$\pm 1\%$: 1F $\pm 0.5\%$: Another	$\pm 0.5\%$: 1F $\pm 0.3\%$: Another	-55°C (30 minutes), +125°C (30 minutes), 100 cycles
Moisture Resistance	$\pm 2\%$: 1J, 2A, 2B $\pm 3\%$: Another	$\pm 0.75\%$: 1J, 2A, 2B $\pm 1.5\%$: 1F $\pm 1\%$: Another	40°C $\pm$ 2°C, 90%-95% RH, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
Endurance at 70°C	$\pm 2\%$: 1J, 2A, 2B $\pm 3\%$: Another	$\pm 0.75\%$: 1J, 2A, 2B $\pm 1\%$: Another	70°C $\pm$ 2°C, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
High Temperature Exposure	$\pm 1\%$	$\pm 0.5\%$: 1F $\pm 0.3\%$: Another	+125°C, 1000 hours: 1F; +155°C, 1000 hours: 1E, 1H, 1J, 2A, 2B, 2E, 2H/W2H, 3A/W3A

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

12/05/14

Mouser Electronics

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KOA Speer:

<u>RK73B1HLTB152J</u>	<u>RK73B1HLTB392J</u>	<u>RK73B1HLTB390J</u>	<u>RK73B1HLTB394J</u>	<u>RK73B1HLTB393J</u>
<u>RK73B1HLTB473J</u>	<u>RK73B1HLTB564J</u>	<u>RK73B1HLTB561J</u>	<u>RK73B1HLTB563J</u>	<u>RK73B1HLTB223J</u>
<u>RK73B1JLTDB102J</u>	<u>RK73B1HLTB472J</u>	<u>RK73B1HLTB153J</u>	<u>RK73B1HLTB150J</u>	<u>RK73B1HLTB154J</u>
<u>RK73B1HTTB220J</u>	<u>RK73B1HTTB224J</u>	<u>RK73B1HTTB222J</u>	<u>RK73B1HTTB103J</u>	<u>RK73B1HTTB101J</u>
<u>RK73B1JTDB561J</u>	<u>RK73B1HTTB105J</u>	<u>RK73B1HTTB104J</u>	<u>RK73B1HTTB100J</u>	<u>RK73B1HTTB102J</u>
<u>RK73B1HTTB561J</u>	<u>RK73B1HTTB563J</u>	<u>RK73B1HTTB562J</u>	<u>RK73B1HTTB564J</u>	<u>RK73B1HTTB560J</u>
<u>RK73B1HTTB681J</u>	<u>RK73B1HTTB683J</u>	<u>RK73B1HTTB682J</u>	<u>RK73B1HTTB680J</u>	<u>RK73B1HTTB684J</u>
<u>RK73B1HTTB271J</u>	<u>RK73B1HTTB273J</u>	<u>RK73B1HTTB272J</u>	<u>RK73B1HTTB270J</u>	<u>RK73B1HTTB274J</u>
<u>RK73B1HTTB151J</u>	<u>RK73B1HTTB153J</u>	<u>RK73B1HTTB152J</u>	<u>RK73B1HTTB154J</u>	<u>RK73B1HTTB150J</u>
<u>RK73B1HTTB391J</u>	<u>RK73B1HTTB393J</u>	<u>RK73B1HTTB392J</u>	<u>RK73B1HTTB394J</u>	<u>RK73B1HTTB390J</u>
<u>RK73B1HTTB430J</u>	<u>RK73B1HTTB332J</u>	<u>RK73B1HTTB334J</u>	<u>RK73B1HTTB333J</u>	<u>RK73B1HTTB331J</u>
<u>RK73B1HTTB361J</u>	<u>RK73B1HTTB7R5J</u>	<u>RK73B1HTTB4R7J</u>	<u>RK73B1HTTB160J</u>	<u>RK73B1HLTB123J</u>
<u>RK73B1HLTB272J</u>	<u>RK73B1HLTB274J</u>	<u>RK73B1HLTB391J</u>	<u>RK73B1HLTB270J</u>	<u>RK73B1HLTB682J</u>
<u>RK73B1HLTB273J</u>	<u>RK73B1HLTB271J</u>	<u>RK73B1HLTB430J</u>	<u>RK73B1HLTB824J</u>	<u>RK73B1HLTB820J</u>
<u>RK73B1HLTB510J</u>	<u>RK73B1HLTB102J</u>	<u>RK73B1HLTB101J</u>	<u>RK73B1HLTB104J</u>	<u>RK73B1HLTB100J</u>
<u>RK73B1HLTB121J</u>	<u>RK73B1HLTB124J</u>	<u>RK73B1HLTB120J</u>	<u>RK73B1HLTB122J</u>	<u>RK73B1HLTB181J</u>
<u>RK73B1HLTB180J</u>	<u>RK73B1HLTB183J</u>	<u>RK73B1HLTB184J</u>	<u>RK73B1HLTB103J</u>	<u>RK73B1HLTB105J</u>
<u>RK73B1HLTB562J</u>	<u>RK73B1HLTB683J</u>	<u>RK73B1HLTB680J</u>	<u>RK73B1HLTB560J</u>	<u>RK73B1HLTB681J</u>
<u>RK73B1HLTB684J</u>	<u>RK73B1HLTB750J</u>	<u>RK73B1HLTB821J</u>	<u>RK73B1HLTB823J</u>	<u>RK73B1HLTB822J</u>
<u>RK73B1HLTB220J</u>	<u>RK73B1HLTB222J</u>	<u>RK73B1HLTB224J</u>	<u>RK73B1HLTB221J</u>	<u>RK73B1HLTB201J</u>