



precision 0.5%, 1% tolerance thick film chip resistor



features



- RuO₂ thick film resistor element
- Anti-leaching nickel barrier terminations
- Meets or exceeds EIA 575, EIAJ RC 2690A, EIA PDP-100, MIL-R-55342F
- Marking: Four-digit black on blue protective coat on 1J – 3A sizes. No marking on 1E size Blue body and no marking on 1H size Three-digit on 1J size, E-24 values only
- Products with lead-free terminations meet EU RoHS requirements. Pb located in glass material, electrode and resistor element is exempt per Annex 1, exemption 5 of EU directive 2005/95/EC

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Type (Inch Size Code)	L	W Dimen	sions inche	s (<i>mm)</i>	t	
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 +.004 002 (1.0 +0.1 -0.05)	.02±.002 (0.5±0.05)	.008±.004 (0.2±0.1)	.01 +.002 004 (0.25 +0.05)	.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 +.008 004 (0.3 +0.2)	.02±.004 (0.5±0.1)	
2B (1206)	.126±.008	.063±.008 (1.6±0.2)				
2E (1210)	(3.2±0.2)	.102±.008 (2.6±0.2)		.016 +.008 004 (0.4 +0.2)	.024±.004 (0.6±0.1)	
2H (2010)	.197±.008	.098±.008	00.010	-0.17		
W2H (2010)	(5.0±0.2)	(2.5±0.2)	.02±.012 (0.5±0.3)	.026±.006 (0.65±0.15)		
3A (2512)	.248±.008	.122±.008		.016 +.008 004 (0.4 +0.2)		
W3A (2512)	W3A	(3.1±0.2)		.026±.006 (0.65±0.15)		

1003

Nominal

Resistance

3 significant

"R" indicates

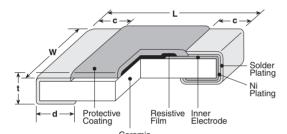
decimal on

value < 100Ω

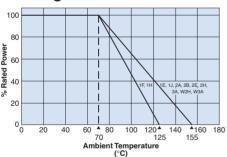
figures + 1

multiplier

dimensions and construction

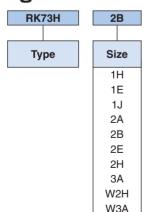


Derating Curve



ordering information

New	Part
14044	ı aıı



Termination Material
T: Sn (1H, 1E, 1J, 2A,

 $\begin{array}{l} (1\text{H},\ 1\text{E},\ 1\text{J},\ 2\text{A},\ 2\text{B},\ 2\text{E},\ 2\text{H},\ 3\text{A}) \\ \text{L:} \ \text{SnPb} \\ (1\text{E},\ 1\text{J},\ 2\text{A},\ 2\text{B},\ 2\text{E},\ 2\text{H},\ 3\text{A}) \\ \text{G:} \ \text{Au} \ (1\text{E},\ 1\text{J},\ 2\text{A}:\ 10\Omega \sim 1\text{M}\Omega \ \text{-} \\ \text{Contact factory)} \end{array}$

Packaging

TD

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 punched paper TPL: 0402 only: 2mm pitch punch paper

TP: 0402, 0603, 0805: 7" 2mm pitch punch paper

TD: 0603, 0805, 1206, 1210: 7" 2mm pitch punched paper

TDD: 0603, 0805, 1206, 1210: 10" paper tape TE: 0805, 1206, 1210, 2010 & 2512:

7" punched plastic TED: 0805, 1206, 1210, 2010 & 2512:

10" punched plastic For further information on packaging, please refer to Appendix A

Specifications given herein may be changed at	any time without prior potice	Dlease confirm technical enecifications b	ofore you order and/or use
openications given herein may be changed at	ary time without prior nouce	i icase commini tecimical specifications t	ciole you older allafol asc.

Tolerance

D: ±0.5%

F: ±1%





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applications and ratings

Part Designation*	Power Rating @ 70°C	T.C.R. (ppm/°C) Max.	Resistance Range E-24, E-96 (D±0.5%)	Resistance Range E-24, E-96 (F±1%)	Absolute Maximum Working Voltage	Absolute Maximum Overload Voltage	Operating Temperature Range	
RK73H1H	RK73H1H	±200	10Ω - 1MΩ1	10Ω - 10MΩ1	25V	50V	-55°C to +125°C	
(0201)	1/20W (.05W)	±400	_	$1.0\Omega - 9.1\Omega^{1}$				
		±100	10Ω - 1ΜΩ	10Ω - 1ΜΩ				
RK73H1E (0402) 1/16	1/16W (.063W)	±200	_	1.0Ω - 9.76Ω 1.02MΩ - 10MΩ				
		±100	10Ω - 1ΜΩ	10Ω - 1ΜΩ	50V	100V		
RK73H1J (0603)	1/10W (.10W)	±200	_	1.0Ω - 9.76Ω 1.02MΩ - 10MΩ				
		±100	10Ω - 1ΜΩ	10Ω - 1ΜΩ				
RK73H2A (0805)	1/8W (.125W)	±200	_	1.0Ω - 9.76Ω	150V	200V		
(0000)	` '	±400	_	1.02ΜΩ - 10ΜΩ				
		±100	10Ω - 1ΜΩ	10Ω - 1ΜΩ				
RK73H2B (1206)	1/4W (.25W)	±200	_	1.0Ω - 9.76Ω 1.02MΩ - 5.6MΩ			-55°C to +155°C	
		±400		5.62MΩ - 10MΩ		200V 400V		
	1/2W (.50W)	±100	10Ω - 1ΚΩ	10Ω - 1ΚΩ				
RK73H2E	1/3W (.33W)		1.02KΩ - 1MΩ	1.02KΩ - 1MΩ				
(1210)	1/2W (.50W)	±200	_	1.0Ω - 9.76Ω	200V			
, ,	1/3W (.33W)	±200	_	1.02MΩ - 5.6MΩ				
	1/3W (.33W)	±400	_	5.62 M Ω - 10 M Ω				
RK73H2H/W2H (2010)	3/4W (.75W)	±100	10Ω - 1ΜΩ	10Ω - 1MΩ				
		±200	_	1.0Ω - 9.76Ω 1.02MΩ - 5.6MΩ				
		±400	_	5.62MΩ - 10MΩ				
	1W	±100	10Ω - 1ΜΩ	10Ω - 1ΜΩ				
RK73H3A/W3A (2512)			±200	_	1.0Ω - 9.76Ω 1.02ΜΩ - 5.6ΜΩ	200V (500V**)	400V (500V**)	
		±400	_	5.62 M Ω - 10 M Ω				

^{*} Parenthesis indicate EIA package size codes.

environmental applications

Performance Characteristics

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

^{**} Please contact KOA Speer for the Max. working voltage and the Max. overload voltage.

¹ E-24 values only.