



# RK73H

precision 0.5%, 1% tolerance  
thick film chip resistor

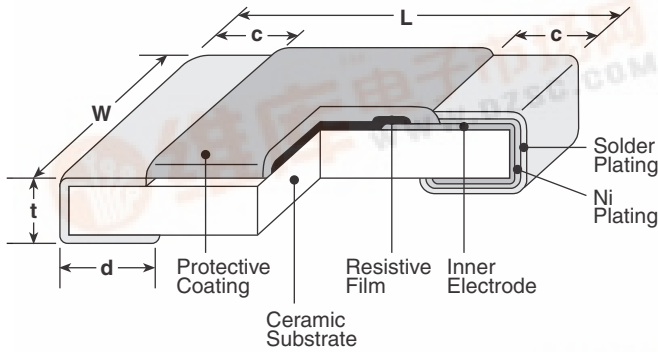
resistors



## features

- RuO<sub>2</sub> thick film resistor element
- Anti-leaching nickel barrier terminations
- 90/10 solder plated terminations, standard
- Available in 100% tin terminations (no lead)
- Also available with epoxy bondable palladium silver terminations in 1J, 2A and 2B sizes. Gold termination available for 1E and 1J sizes
- Meets or exceeds EIA 575, EIAJ RC 2690A, EIA PDP-100, MIL-R-55342F
- Marking: Four-digit black on blue protective coat  
No marking on 1H or 1E sizes  
Three-digit on 1J size, E-24 values only

## dimensions and construction



Type (Inch Size Code)	Dimensions inches (mm)				
	L	W	c	d	t
<b>1H</b> (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)
<b>1E</b> (0402)	.039 <sup>+0.04</sup> <sub>-.002</sub> (1.0 <sup>+0.1</sup> <sub>-.05</sub> )	.02±.002 (0.5±0.05)	.008±.004 (0.2±0.1)	.01 <sup>+0.02</sup> <sub>-.004</sub> (0.25 <sup>+0.05</sup> <sub>-.01</sub> )	.014±.002 (0.35±0.05)
<b>1J</b> (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)
<b>2A</b> (0805)	.079±.008 (2.0±0.2)	.049±.004 (1.25±0.1)	.016±.008 (0.4±0.2)	.012 <sup>+0.08</sup> <sub>-.004</sub> (0.3 <sup>+0.2</sup> <sub>-.01</sub> )	.02±.004 (0.5±0.1)
<b>2B</b> (1206)	.126±.008 (3.2±0.2)	.063±.008 (1.6±0.2)	.02±.012 (0.5±0.3)	.016 <sup>+0.08</sup> <sub>-.004</sub> (0.4 <sup>+0.2</sup> <sub>-.01</sub> )	.024±.004 (0.6±0.1)
<b>2E</b> (1210)		.102±.008 (2.6±0.2)			
<b>2H</b> (2010)	.197±.008 (5.0±0.2)	.098±.008 (2.5±0.2)			
<b>3A</b> (2512)	.248±.008 (6.3±0.2)	.122±.008 (3.1±0.2)			

## ordering information

Old Part #	RK73	H	2B		T	1003	F
New Part #	RK73H		2B	L	TD	1003	F
	Type	Solderable	Size	Termination Material	Packaging	Nominal Resistance	Tolerance
			1H 1E 1J 2A 2B 2E 2H 3A	X: AgPd** G: Au* L: SnPb T: Sn	TB: 2mm pitch pressed paper (0201 only) TP: 2mm pitch punched paper (0402 & 0603) TD: 7" paper tape (0603, 0805, 1206 & 1210) TDD: 10" paper tape (0603, 0805, 1206 & 1210) TE: 7" punched plastic (0805, 1206, 1210, 2010 & 2512) TED: 10" punched plastic (0805, 1206, 1210, 2010 & 2512)	3 significant figures + 1 multiplier "R" indicates decimal on value <100Ω	D: ±0.5% F: ±1%

\* Available ONLY in 1E and 1J (10Ω ~ 1MΩ) chip sizes

\*\* Available ONLY in 1J, 2A and 2B (10Ω ~ 10MΩ) chip sizes

For further information on packaging, please refer to Appendix A.

## 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 (0201)	1/20W (.05W)	±200	10Ω - 1MΩ	10Ω - 1MΩ <sup>1</sup>	25V	50V	-55°C to +125°C
RK73H1E (0402)	1/16W (.063W)	±100	10Ω - 976k	10Ω - 1MΩ	50V	100V	-55°C to +155°C
		±200	—	1.02MΩ - 10MΩ			
RK73H1J (0603)	1/10W (.10W)	±400	—	1.0Ω - 9.76Ω	50V	100V	
		±100	10Ω - 1MΩ	10Ω - 1MΩ			
		±400	—	1.0Ω - 9.76Ω			
RK73H2A (0805)	1/8W (.125W)	±200	—	1.02MΩ - 10MΩ	150V	300V	
		±100	10Ω - 1MΩ	10Ω - 1MΩ			
RK73H2B (1206)	1/4W (.25W)	±400	—	1.0Ω - 9.76Ω	150V	300V	
		±100	10Ω - 1MΩ	10Ω - 1MΩ			
		±200	—	1.02MΩ - 5.6MΩ			
RK73H2E (1210)	1/2W (.50W)	±100	10Ω - 1KΩ	10Ω - 1KΩ	200V	400V	
	1/3W (.33W)		1.02KΩ - 1MΩ	1.02KΩ - 1MΩ			
	±200	—	1.02MΩ - 5.6MΩ				
	±400	—	1.0Ω - 9.76Ω				
	±200	—	5.62MΩ - 10MΩ				
RK73H2H (2010)	3/4W (.75W)	±100	10Ω - 1MΩ	10Ω - 1MΩ	200V	400V	
		±200	—	1.02MΩ - 5.6MΩ			
		±400	—	1.0Ω - 9.76Ω			
RK73H3A (2512)	1W	±200	—	5.62MΩ - 10MΩ	200V	400V	
		±100	10Ω - 1MΩ	10Ω - 1MΩ			
		±400	—	1.0Ω - 9.76Ω			

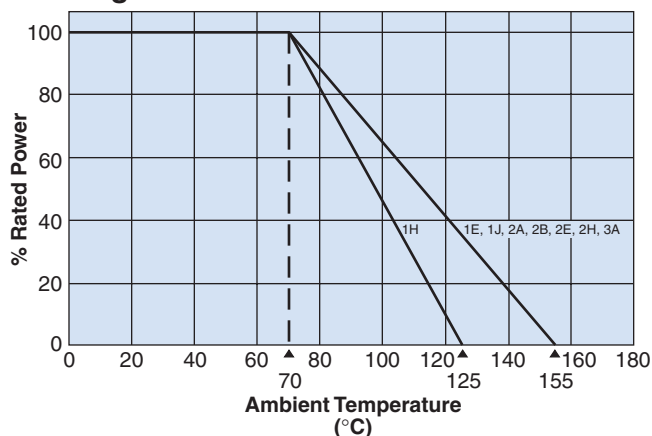
\* Parenthesis indicate EIA package size codes.

\*\* 1J, 2A, 2B sizes available -55°C to +175°C (contact factory).

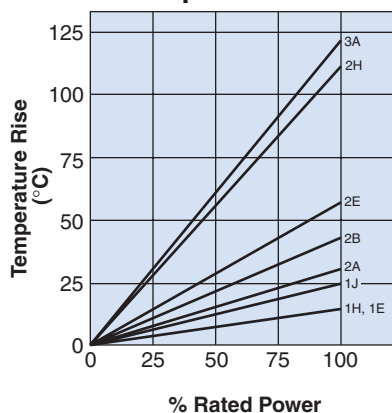
<sup>1</sup> E-24 values only.

## environmental applications

### Derating Curve



### Surface Temperature Rise



For complete environmental specifications, please refer to pages 22-23.

