

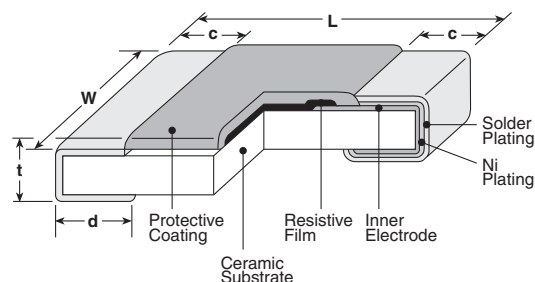
thick film 0.5%, 1% tolerance, 50ppm/°C chip resistor



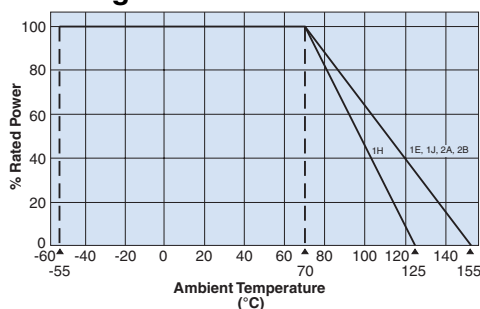
features

- High precision resistor with T.C.R. of ± 50 ppm/°C and tolerance of $\pm 0.5\%$ or 1%
- RuO₂ thick film resistor element
- Marking: Four-digit, white on black (1E) and dark blue protective coat (1J, 2A, 2B)
1J-3 marking for E-24
No marking for E-96
Black protective coat on 1H and 1E with no marking
- 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

dimensions and construction



Derating Curve



Type (Inch Size Code)	Dimensions inches (mm)				
	L	W	c	d	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±.012 (0.23±0.03)
1E (0402)	.039 ^{+.004} _{-.002} (1.0 ^{+.01} _{-.05})	.02±.002 (0.5±0.05)	.008±.004 (0.2±0.1)	.01 ^{+.002} _{-.004} (0.25 ^{+.05} _{-.1})	.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 ^{+.02} _{-.1})	.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 ^{+.008} _{-.004} (0.4 ^{+.02} _{-.1})	.024±.004 (0.6±0.1)

ordering information

New Part #	RK73G	1J	T	TD	1003	F
Type		Size	Termination Material	Packaging	Nominal Resistance	Tolerance
		1H 1E 1J 2A 2B	T: Sn (1H, 1E, 1J, 2A, 2B) L: SnPb (1E, 1J, 2A, 2B)	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) TPL: 0402 only: 2mm pitch punch paper TP: 0402, 0603, 0805: 7" 2mm pitch punch paper TD: 0603, 0805, 1206: 7" 4mm pitch punched paper TDD: 0603, 0805, 1206: 10" paper tape TE: 0805, 1206: 7" punched plastic TED: 0805, 1206: 10" punched plastic For further information on packaging, please refer to Appendix A	3 significant figures + 1 multiplier "R" indicates decimal on value <100Ω	D: $\pm 0.5\%$ F: $\pm 1\%$

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

11/05/09

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	
RK73G1H (0201)	1/10W (.05W)	±50	100Ω - 1MΩ**	100Ω - 1MΩ**	25V	50V	-55°C to +125°C	
RK73G1E (0402)	1/16W (.063W)		10Ω - 1MΩ	10Ω - 1MΩ	50V	100V	-55°C to +155°C	
RK73G1J (0603)	1/10W (.10W)		10Ω - 1MΩ		75V	150V		
RK73G2A (0805)	1/8W (.125W)				150V	200V		
RK73G2B (1206)	1/4W (.25W)				200V	400V		

* Parentheses indicate EIA package size codes.

** RK73G1H available in E-24 decade values only

environmental applications

Performance Characteristics

Parameter	Requirement ΔR		Test Method
	Limit	Typical	
Resistance	Within specified tolerance	—	25°C
T.C.R.	Within specified T.C.R.	—	1H: +25°C/+125°C, 1E, 1J, 2A, 2B: +25°C/-55°C and +25°C/+125°C
Overload (Short time)	±2%	±0.6%	Rated Voltage x 2.5 for 5 seconds (2B: Rated Voltage x 2 for 5 seconds)
Resistance to Solder Heat	±1%	±1%: 1H, ±0.4%: 1E, 1J, 2A, 2B	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%: 1H, 1E	±0.6%: 1J, 2A, 2B; ±1%: 1H, 1E	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%: 1H, 1E	±0.6%: 1J, 2A, 2B; ±1%: 1H, 1E	70°C ± 2°C, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
High Temperature Exposure	±1%	±0.6%	+125°C, 1000 hours: 1H +155°C, 1000 hours: 1E, 1J, 2A, 2B

For Surface Temperature Rise Graph see Environmental Applications. Additional environmental applications can also be found at www.koaspeer.com

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

10/30/08