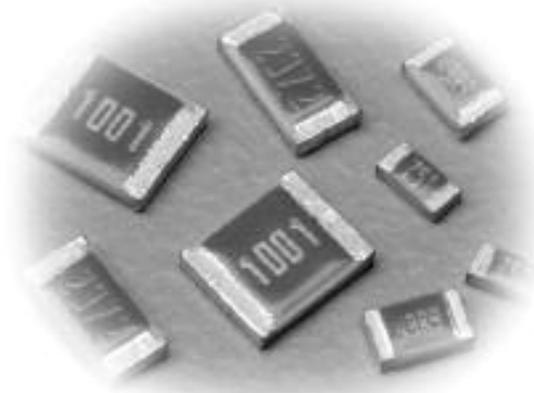


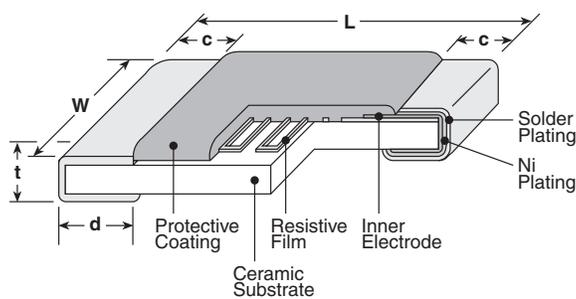
precision high heat resistance metal film chip resistor



features

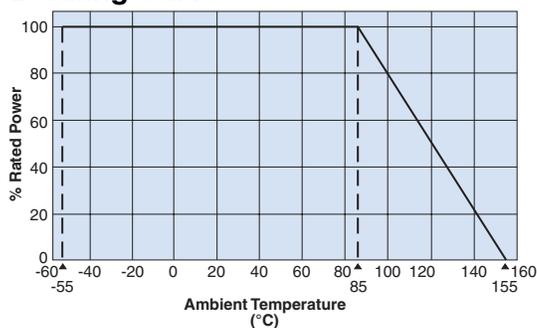
- SMD metal film resistors
- High precision type $\pm 0.05\%$ is available with standard products
- Improved moisture resistance by special protective coating
- Rated up to $+155^{\circ}\text{C}$
- Marking: Black coating
- Products with lead-free terminations meet EU RoHS requirements

dimensions and construction



Type (Inch Size Code)	Dimensions inches (mm)				
	L	W	c	d	t
NEW 1E (0402)	.039 ^{+0.004} _{-.002} (1.0 ^{+0.1} _{-0.05})	.020 \pm .002 (0.5 \pm 0.05)	.010 \pm 0.004 (0.25 \pm 0.1)	.010 ^{+0.002} _{-.004} (0.25 ^{+0.05} _{-0.1})	.014 \pm 0.002 (0.35 \pm 0.05)
1J (0603)	.063 \pm .008 (1.6 \pm 0.2)	.031 \pm .004 (0.8 \pm 0.1)	.012 \pm 0.004 (0.3 \pm 0.1)	.012 \pm 0.004 (0.3 \pm 0.1)	.018 \pm 0.004 (0.45 \pm 0.1)
2A (0805)	.079 \pm .008 (2.0 \pm 0.2)	.049 \pm .008 (1.25 \pm 0.2)	.016 \pm 0.008 (0.4 \pm 0.2)	.012 ^{+0.008} _{-.004} (0.3 ^{+0.2} _{-0.1})	.02 \pm 0.004 (0.5 \pm 0.1)
2B (1206)	.126 \pm 0.008 (3.2 \pm 0.2)	.063 \pm .008 (1.6 \pm 0.2)	.02 \pm .012 (0.5 \pm 0.3)	.016 ^{+0.008} _{-.004} (0.4 ^{+0.2} _{-0.1})	.024 \pm 0.004 (0.6 \pm 0.1)
2E (1210)		.098 \pm .008 (2.5 \pm 0.2)			

Derating Curve



ordering information

New Part #	RN73H	2B	T	TD	1002	B	25
Type							
Size		NEW 1E: 0.063W 1J: 0.1W 2A: 0.125W 2B: 0.25W 2E: 0.25W					
Termination Material			T: Sn				
Packaging				TP: 0402 only: 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: 7" punched plastic TED: 0805, 1206, 1210: 10" punched plastic For further information on packaging, please refer to Appendix A			
Nominal Resistance					3 significant figures + 1 multiplier "R" indicates decimal on value <100 Ω		
Resistance Tolerance					A: $\pm 0.05\%$ B: $\pm 0.1\%$ C: $\pm 0.25\%$ D: $\pm 0.5\%$ F: $\pm 1.0\%$		
T.C.R. (ppm/ $^{\circ}\text{C}$)							05 10 25 50 100

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

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applications and ratings

NEW	Part Designation	Power Rating @ 70°C	T.C.R. (ppm/°C) Max.	Resistance Range E-24, E-96, E-192*					Maximum Working Voltage	Maximum Overload Voltage	Operating Temp. Range
				(A±0.05%)	(B±0.1%)	(C±0.25%)	(D±0.5%)	(F±1.0%)			
NEW	RN73H1E	1/16W (.063W)	±10	—	100Ω - 10kΩ	100Ω - 10kΩ	100Ω - 10kΩ	100Ω - 10kΩ	50V	75V	-55°C to +155°C
			±25	—	100Ω - 100kΩ	100Ω - 100kΩ	47Ω - 100kΩ	47Ω - 100kΩ			
			±50	—	100Ω - 100kΩ	100Ω - 100kΩ	10Ω - 100kΩ	10Ω - 100kΩ			
NEW	RN73H1J	1/10W (.10W)	±5	100Ω - 47kΩ	100Ω - 47kΩ	—	—	—	75V	150V	
			±10	100Ω - 59kΩ	100Ω - 59kΩ	100Ω - 59kΩ	100Ω - 59kΩ	100Ω - 59kΩ			
			±25	51Ω - 59kΩ	15Ω - 360kΩ	15Ω - 360kΩ	10Ω - 360kΩ	10Ω - 360kΩ			
			±50	—	15Ω - 360kΩ	15Ω - 360kΩ	10Ω - 360kΩ	10Ω - 360kΩ			
NEW	RN73H2A	1/8W (.125W)	±5	100Ω - 100kΩ	100Ω - 100kΩ	—	—	—	100V	200V	
			±10	100Ω - 100kΩ	100Ω - 100kΩ	100Ω - 100kΩ	100Ω - 100kΩ	100Ω - 100kΩ			
			±25	51Ω - 100kΩ	15Ω - 750kΩ	15Ω - 750kΩ	10Ω - 750kΩ	10Ω - 750kΩ			
			±50	—	15Ω - 750kΩ	15Ω - 750kΩ	10Ω - 750kΩ	10Ω - 750kΩ			
			±100	—	—	—	10Ω - 750kΩ	10Ω - 750kΩ			
NEW	RN73H2B	1/4W (.25W)	±5	100Ω - 300kΩ	100Ω - 300kΩ	—	—	—	150V	300V	
			±10	100Ω - 300kΩ	100Ω - 300kΩ	100Ω - 300kΩ	100Ω - 300kΩ	100Ω - 300kΩ			
			±25	51Ω - 300kΩ	15Ω - 820kΩ	15Ω - 820kΩ	10Ω - 820kΩ	10Ω - 820kΩ			
			±50	—	15Ω - 820kΩ	15Ω - 820kΩ	10Ω - 820kΩ	10Ω - 820kΩ			
			±100	—	—	—	10Ω - 820kΩ	10Ω - 820kΩ			
NEW	RN73H2E	1/4W (.25W)	±10	100Ω - 510kΩ	100Ω - 510kΩ	100Ω - 510kΩ	100Ω - 510kΩ	100Ω - 510kΩ	200V	400V	
			±25	51Ω - 510kΩ	15Ω - 1MΩ	15Ω - 1MΩ	10Ω - 1MΩ	10Ω - 1MΩ			
			±50	—	15Ω - 1MΩ	15Ω - 1MΩ	10Ω - 1MΩ	10Ω - 1MΩ			
			±100	—	—	—	10Ω - 1MΩ	10Ω - 1MΩ			

* No marking on E-192 values

environmental applications

Performance Characteristics

Parameter	Requirement Δ R		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/+155°C**
Overload (Short time)	±0.05%	±0.01%	Rated Voltage x 2.5 or Max. overload volume, whichever is less for 5 seconds
Resistance to Solder Heat	±0.05%	±0.01%	260°C ± 5°C, 10 seconds ± 1 second
Rapid Change of Temperature	±0.1%*	±0.02%	1J, 2A: -55°C (30 minutes), +155°C (30 minutes), 1000 cycles 2B, 2E: -55°C (30 minutes), +155°C (30 minutes), 500 cycles
Moisture Resistance	±0.1%*	±0.05%	85°C ± 2°C, 85%±5%RH, 1000 hours; 1.5 hr ON, 0.5 hr OFF cycle
Endurance at 85°C	±0.1%*	±0.05%	85°C ± 2°C, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
High Temperature Exposure	±0.1%*	±0.05%	+155°C, 1000 hours

* Depends on resistance value, please contact KOA Speer for details.

** Test conditions differs depending on resistance value

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

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