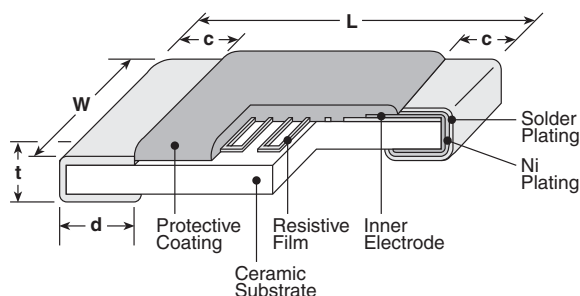


features

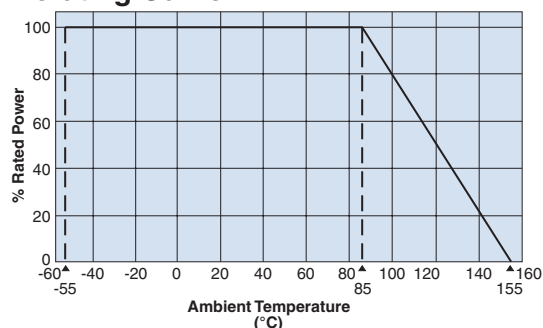
- High precision type $\pm 0.05\%$ is available with standard products
- Improved moisture resistance by glass passivation layer
- High reliability and high stability at elevated temperatures
- Low current noise
- Products with lead-free terminations meet EU RoHS requirements
- Rated ambient temperature: 85°C, rated up to +155°C
- AEC-Q200 Qualified: 0402 (1E), 0603 (1J), 0805 (2A), 1206 (2B), 1210 (2E)

dimensions and construction

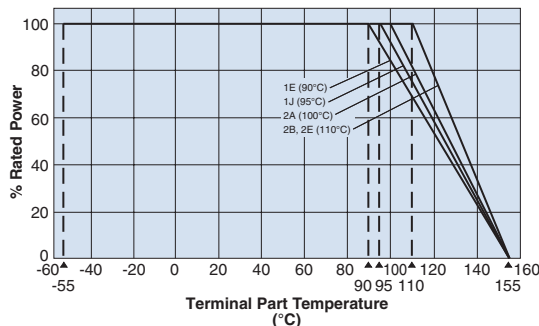


Type (Inch Size Code)	Dimensions inches (mm)				
	L	W	c	d	t
1E (0402)	.039 $\pm$.004 - .002 (1.0 $\pm$ 0.1 - 0.05)	.020 $\pm$.002 (0.5 $\pm$ 0.05)	.010 $\pm$.004 (0.25 $\pm$ 0.1)	.010 $\pm$.002 - .004 (0.25 $\pm$ 0.05 - 0.1)	.014 $\pm$.002 (0.35 $\pm$ 0.05)
1J (0603)	.063 $\pm$.008 (1.6 $\pm$ 0.2)	.031 $\pm$.004 (0.8 $\pm$ 0.1)	.012 $\pm$.004 (0.3 $\pm$ 0.1)	.012 $\pm$.004 (0.3 $\pm$ 0.1)	.018 $\pm$.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 $\pm$.008 (0.4 $\pm$ 0.2)	.012 $\pm$.008 - .004 (0.3 $\pm$ 0.2 - 0.1)	.02 $\pm$.004 (0.5 $\pm$ 0.1)
2B (1206)	.126 $\pm$.008 (3.2 $\pm$ 0.2)	.063 $\pm$.008 (1.6 $\pm$ 0.2)	.02 $\pm$.012 (0.5 $\pm$ 0.3)	.016 $\pm$.008 - .004 (0.4 $\pm$ 0.2 - 0.1)	.024 $\pm$.004 (0.6 $\pm$ 0.1)
2E (1210)		.098 $\pm$.008 (2.5 $\pm$ 0.2)			

Derating Curve



For resistors operated at an ambient temperature of 85°C or above, a power rating shall be derated in accordance with the above derating curve.



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

ordering information

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

applications and ratings

Part Designation	Power Rating @ 85°C	Rated Ambient Temp.	Rated Terminal Part Temp.	T.C.R. (ppm/°C) Max.	Resistance Range (Ω) E-24, E-96, E-192*					Maximum Working Voltage	Maximum Overload Voltage
					(A±0.05%)	(B±0.1%)	(C±0.25%)	(D±0.5%)	(F±1.0%)		
RN73H1E	1/16W (.063W)	85°C	90°C	±10	—	47 - 10k	47 - 10k	47 - 10k	47 - 10k	50V	100V
				±25	—	47 - 300k	47 - 300k	47 - 300k	47 - 300k		
				±50	—	47 - 300k	47 - 300k	10 - 300k	10 - 300k		
RN73H1J	1/10W (.10W)	85°C	95°C	±5	100 - 59k	100 - 59k	—	—	—	75V	150V
				±10	47 - 59k	47 - 360k	47 - 360k	47 - 360k	47 - 360k		
				±25	47 - 59k	15 - 1M	15 - 1M	10 - 1M	10 - 1M		
				±50	—	15 - 1M	15 - 1M	10 - 1M	10 - 1M		
				±100	—	—	—	10 - 1M	10 - 1M		
RN73H2A	1/8W (.125W)	85°C	100°C	±5	100 - 100k	100 - 100k	—	—	—	150V	300V
				±10	47 - 100k	47 - 1M	47 - 1M	47 - 1M	47 - 1M		
				±25	47 - 100k	15 - 1.5M	15 - 1.5M	10 - 1.5M	10 - 1.5M		
				±50	—	15 - 1.5M	15 - 1.5M	10 - 1.5M	10 - 1.5M		
				±100	—	—	—	10 - 1.5M	10 - 1.5M		
RN73H2B	1/4W (.25W)	85°C	110°C	±5	100 - 300k	100 - 300k	—	—	—	200V	400V
				±10	47 - 300k	47 - 1M	47 - 1M	47 - 1M	47 - 1M		
				±25	47 - 300k	15 - 1M	15 - 1M	10 - 1M	10 - 1M		
				±50	—	15 - 1M	15 - 1M	10 - 1M	10 - 1M		
				±100	—	—	—	10 - 1M	10 - 1M		
RN73H2E	1/4W (.25W)	85°C	110°C	±10	100 - 510k	100 - 510k	100 - 510k	100 - 510k	100 - 510k	200V	400V
				±25	51 - 510k	15 - 1M	15 - 1M	10 - 1M	10 - 1M		
				±50	—	15 - 1M	15 - 1M	10 - 1M	10 - 1M		
				±100	—	—	—	10 - 1M	10 - 1M		

* No marking on E-192 values

Operating Temperature: -55°C to +155°C

environmental applications

Performance Characteristics

Parameter	Requirement $\Delta R \pm (\% + 0.05\Omega)$		Test Method
	Limit	Typical	
Resistance	Within specified tolerance	—	25°C
T.C.R.	Within specified T.C.R.	—	+25°C/+125°C: T.C.R. +5 (x10 ⁻⁶ K); +15°C/-55°C and +25°C/+155°C: other
Overload (Short time)	±0.05%	±0.01%	Rated Voltage x 2.5 or Max. overload voltage, 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%	1E, 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%*	±0.03%	85°C ± 2°C, 3000 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.

Precautions for Use

- The properly and electrostatically measured taping materials are used for the components, but attention should be paid to the fact that there is some danger the parts absorb on the top tapes to cause a failure in the mounting and the parts are destructed by static electricity (1J, 2A, 2B, 2E: 1kV and more, 1E: 0.5kV and more at Human Body Model 100pF, 1.5kΩ) to change the resistance in the conditions of an excessive dryness or after the parts are given vibration for a long time as they are packaged on the tapes. Similarly, care should be given not to apply the excessive static electricity when mounting on the boards.
- Ionic impurities such as flux etc. that are attached to these products or those mounted onto a PCB, negatively affect their moisture resistance, corrosion resistance, etc. The flux may contain ionic substances like chlorine, acid, etc. while perspiration and saliva include ionic impurities like sodium (Na⁺), chlorine (Cl⁻) etc. Therefore these kinds of ionic substances may induce electrical corrosion when they invade into the products. Either thorough washing or using RMA solder and flux are necessary since lead free solder contains ionic substances. Washing process is needed, before putting on moisture proof material in order to prevent electrical corrosion.
- Please pay attention that the top of an iron does not direct touch to the components. There is a risk that may cause a change in resistance. Take care that another risk may happen that the protecting coat is carbonized in an instant when touched directly by the top of the iron, also climatic-proof for electric corrosion or insulation of protecting coat may be dropped down. Be sure not to give high temperature on the top of the iron as it will degrade the protecting coat.
- Avoid storing components under direct sun rays, high temperature/humidity. Direct sun rays will cause quality change of taping and difficulty of keeping appropriate peeling strength. 5-35°C/35-75%RH, there is no deterioration of solderability for 12 months, but take special care for storing, because condensation, dust, and toxic gas like hydrogen sulfide, sulfuric acid gas, hydrogen chloride, etc. may drop solderability.
- The upper electrodes could be peeled off when a heat-resistant masking tape is attached to the mounted chip resistors and then detached from them. It is confirmed that the adhesiveness gets stronger due to the exposure to heat under mounting. Accordingly, we recommend the use of masking tape be refrained. If the use of heat-resistant masking tape is unavoidable, please make sure that the adhesives on the tape do not directly come in contact with the product.

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.

11/06/17

Mouser Electronics

Authorized Distributor

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KOA Speer:

RN73H2ETTD12R7F50	RN73H2ETTD12R9D25	RN73H2ETTD12R9D50	RN73H2ETTD12R9F25
RN73H2ETTD12R9F50	RN73H2ETTD1300B10	RN73H2ETTD1300C50	RN73H2ETTD1300D25
RN73H2ETTD1300D50	RN73H2ETTD1300F25	RN73H2ETTD1300F50	RN73H2ETTD1301B10
RN73H2ETTD1301C50	RN73H2ETTD1301D25	RN73H2ETTD1301D50	RN73H2ETTD1301F25
RN73H2ETTD1301F50	RN73H2ETTD1302B10	RN73H2ETTD1302C50	RN73H2ETTD1302D25
RN73H2ETTD1302D50	RN73H2ETTD1302F25	RN73H2ETTD1302F50	RN73H2ETTD1303B10
RN73H2ETTD1303C50	RN73H2ETTD1303D25	RN73H2ETTD1303D50	RN73H2ETTD1303F25
RN73H2ETTD1303F50	RN73H2ETTD1320B10	RN73H2ETTD1320C50	RN73H2ETTD1320D25
RN73H2ETTD1320D50	RN73H2ETTD1320F25	RN73H2ETTD1320F50	RN73H2ETTD1321B10
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RN73H2ETTD1321F50	RN73H2ETTD1322B10	RN73H2ETTD1322C50	RN73H2ETTD1322D25
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RN73H2ETTD1333C50	RN73H2ETTD1333D25	RN73H2ETTD1333D50	RN73H2ETTD1333F25
RN73H2ETTD1333F50	RN73H2ETTD1370B10	RN73H2ETTD1370C50	RN73H2ETTD1370D25
RN73H2ETTD1370D50	RN73H2ETTD1370F25	RN73H2ETTD1370F50	RN73H2ETTD1371B10
RN73H2ETTD1371C50	RN73H2ETTD1371D25	RN73H2ETTD1371D50	RN73H2ETTD1371F25
RN73H2ETTD1371F50	RN73H2ETTD1372B10	RN73H2ETTD1372C50	RN73H2ETTD1372D25
RN73H2ETTD1372D50	RN73H2ETTD1372F25	RN73H2ETTD1372F50	RN73H2ETTD1373B10
RN73H2ETTD1373C50	RN73H2ETTD1373D25	RN73H2ETTD1373D50	RN73H2ETTD1373F25