KOA SPEER ELECTRONICS, INC.

CN__A

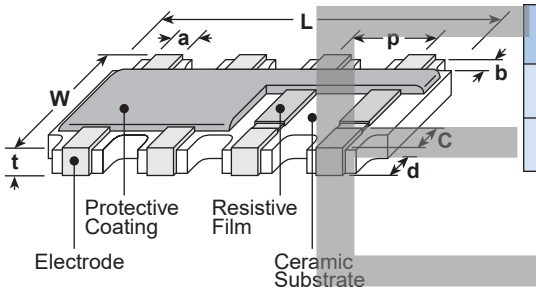
convex termination with scalloped corners resistor array

EU RoHS COMPLIANT

features

- Manufactured to type RK73 standards
- Less board space than individual chips
- Isolated resistor elements
- Convex terminations with scalloped corners
- Products with lead-free terminations meet EU RoHS requirements. EU RoHS regulation is not intended for Pb-glass contained in electrode, resistor element and glass.
- AEC-Q200 Qualified: CN1J4A only

dimensions and construction

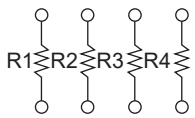


Size Code	Dimensions inches (mm)							
	L	W	C	d	t	a	b	p (ref.)
1J4A	.126±.006 (3.2±0.15)	.063±.006 (1.6±0.15)	.012±.008 (0.3±0.2)	.010±.004 (0.25±0.1)	.020±.004 (0.5±0.1)	.020±.006 (0.5±0.15)	.012±.004 (0.3±0.1)	.031 (0.8)
2B4A	0.2±.008 (5.1±0.2)	.122±.008 (3.1±0.2)	.020±.008 (0.5±0.2)	.014±.006 (0.35±0.15)	.022±.004 (0.55±0.1)	.031±.008 (0.8±0.2)	.018±.004 (0.45±0.1)	.050 (1.27)

ordering information

CN	1J	4	A	T	TD	101	J
Type	Size	Elements	Terminal Convex	Termination Material	Packaging	Nominal Resistance	Tolerance
	1J 2B			T: Sn (Other termination styles maybe available, please contact factory for options)	TE: 7" embossed plastic TD: 7" paper tape TED: 10" embossed plastic TDD: 10" paper tape	2 significant figures + 1 multiplier for ±2% & ±5% 3 significant figures + 1 multiplier for ±1%	F: ±1% J: ±5%

circuit schematic



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

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applications and ratings

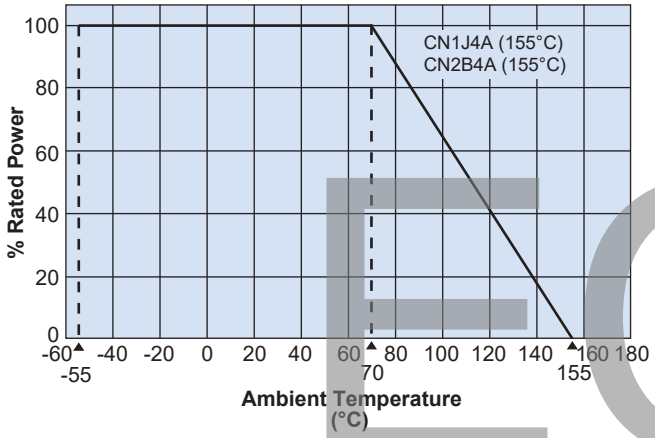
Part Designation	Power Rating @ 70°C (Per Element)	Rated Ambient Temp.	Rated Terminal Temp.	T.C.R. (ppm/°C) Max. (F±1%)	T.C.R. (ppm/°C) Max. (J±5%)	Resistance Range E-24, E-96 (F±1%)	Resistance Range E-24 (J±5%)	Absolute Maximum Working Voltage	Absolute Maximum Overload Voltage	Operating Temp. Range
CN1J4A	1/16W (.063W)	70°C	+125°C	±100:R≥10Ω	±200:R≥10Ω ±400:R<10Ω	10 - 100kΩ	1Ω - 1MΩ	50V	100V	-55°C to +155°C
CN2B4A	1/8W (.125W)			—		—	10Ω - 1MΩ	200V	400V	

* Note that network resistors generate higher heat rather than single flat chip resistors even under rated power output

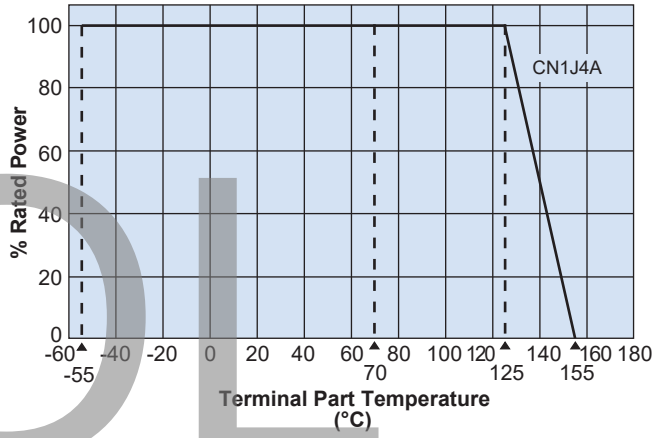
If any questions should arise whether to use the “Rated Ambient Temperature” or the “Rated Terminal Part Temperature,” please give priority to the “Rated Terminal Part Temperature.” Prior to use and for more details refer to “Introduction of the derating curves on the terminal part temperature” in the beginning of the catalog.

environmental applications

Derating Curve



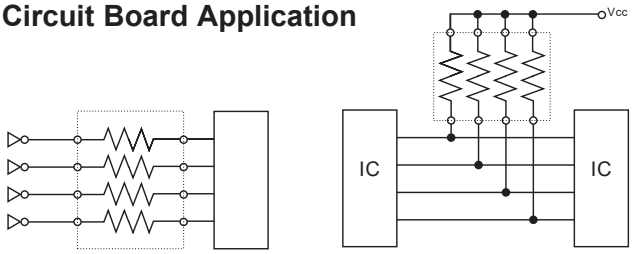
For resistors operated at an ambient temperature of 70°C or above, a power rating shall be derated in accordance with the above derating curve.



For resistors operated at a terminal part temperature of described for each size or above, a power rating shall be derated in accordance with the derating curve.

Please refer to “Introduction of the derating curve based on the terminal part temperature” in the beginning of our catalog before use.

Circuit Board Application



Performance Characteristics

Parameter	Requirement Δ R ±(%+0.1Ω) Limit	Typical	Test Method
Resistance	Within specified tolerance	—	25°C
T.C.R.	Within specified T.C.R.	—	+25°C/-55°C, +25°C/+125°C
Overload (Short time)	±2.0%	±0.25%	Rated voltage x 2.5 for 5 seconds
Resistance to Solder Heat	±1.0%	±0.75%	260°C ± 5°C, 10 seconds ± 1 second
Rapid Change of Temperature	±1.0%	±0.5%	-55°C (30 minutes), +125°C (30 minutes), 5 cycles
Moisture Resistance	±5.0%	±1.0%	40°C ± 2°C, 90 - 95% RH, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
Endurance at 70°C	±5.0%	±0.5%	70°C ± 2°C, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
High Temperature Exposure	±1.0%	±0.25%	+155°C, 1000 hours

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CN1J4ALTD301J CN1J4ALTD221J CN1J4ALTD220J CN1J4ATTD470J CN1J4ALTD470J CN1J4ALTD472J CN1J4ALTD390J CN1J4ATTD472J CN1J4ATTD822J CN1J4ATTD471J CN1J4ATTD390J CN1J4ATTD510J CN1J4ATTD102J CN1J4ATTD104J CN1J4ATTD100J CN1J4ATTD103J CN1J4ATTD101J CN1J4ATTD221J CN1J4ATTD220J CN1J4ATTD201J CN1J4ATTD560J CN1J4ALTDD330J CN1J4ALTD510J CN1J4ALTD471J CN1J4ALTD822J CN1J4ALTD120J CN1J4ALTD272J CN1J4ALTD270J CN1J4ALTD103J CN1J4ALTD101J CN1J4ALTD102J CN1J4ALTD100J CN1J4ALTD104J CN1J4ALTD330J CN1J4ATTD120J CN1J4ATTD272J CN1J4ATTD270J CN1J4ATTD301J CN1J4ATTD330J CN1J4ALTD105J CN1J4ALTD121J CN1J4ALTD150J CN1J4ALTD223J CN1J4ALTD332J CN1J4ALTD333J CN1J4ALTD473J CN1J4ALTD562J CN1J4ATTD121J CN1J4ATTD302J CN1J4ATTD332J CN1J4ATTD433J CN1J4ALTD750J CN1J4ATTD473J