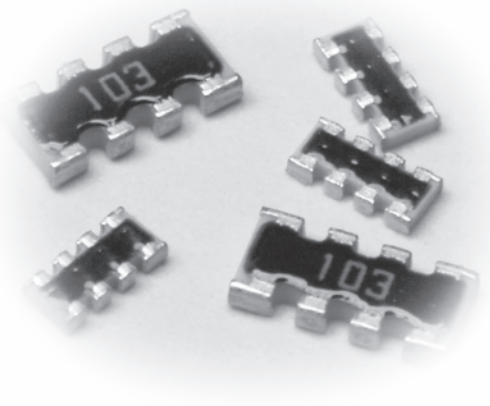
KOA SPEER ELECTRONICS, INC.

CN___KIN

convex termination with square corners resistor array

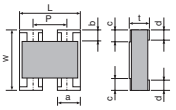


features

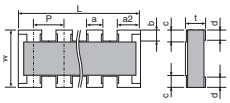
- Manufactured to type RK73 standards
- Less board space than individual chips
- Isolated resistor elements
- Convex terminations with square corners (CN_K)
- Flat termination with square corners (CN_N)
- Marking: Body color black
  1FN8K, 1E no marking
  1F8K: ±1%: white four-digit marking,
  ±5%: white three-digit marking
  1J white three-digit marking
- 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: CN1J4K only

dimensions and construction

CN1E2K, CN1J2K



CN1E4K, CN1J4K, CN1F8K, CN1FN8K



Size Code	Dimensions inches (mm) L	W	c	d	t	a	a 2	b	P
1E2K (0402x2)	.039±.004 (1.0±0.1)	.039±.004 (1.0±0.1)	.006±.004 (0.15±0.1)	.010±.004 (0.25±0.1)	.014±.004 (0.35±0.1)	.013±.004 (0.33±0.1)	—	.007±.002 (0.17±0.05)	.026 (0.67)
1E4K (0402x4)	.079±.004 (2.0±0.1)		.006±.004 (0.15±0.1)	.010±.008 (0.25±0.2)		.012±.006 (0.3±0.15)	.016±.006 (0.4±0.15)	.006±.004 (0.15±0.1)	.020 (0.5)
1J2K (0603x2)	.063±.006 (1.6±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)	.024±.006 (0.6±0.15)	—	.012±.004 (0.3±0.1)	0.031 (0.8)
1J4K (0603x4)	.126±.006 (3.2±0.15)					.020±.006 (0.5±0.15)	.026±.006 (0.65±0.15)		
1F8K 1FN8K (0602x8)	.149±.004 (3.8±0.1)	.063±.004 (1.6±0.1)	.012±.004 (0.3±0.1)	.012±.004 (0.3±0.1)	.018±.004 (0.45±0.1)	.012±.004 (0.30±0.1)	—	.006 (0.15)	.020 (0.5)

ordering information

New Part # CN | 1J | 4 | K | T | TD | 101 | J

Type	Size	Elements	Terminal Convex	Termination Material	Packaging	Nominal Resistance	Tolerance
	1E 1J	2 4	K: Convex type with square corners N: Flat type with square corners	T: Sn (1E, 1J: Other termination styles may be available, please contact factory for options)	TD: 7" paper tape TDD: 10" paper tape	2 significant figures + 1 multiplier for ±5% 3 significant figures + 1 multiplier for ±1%	F: ±1% J: ±5%

New Part # CN | 1F | N | 8 | K | T | TD | 101 | J

Type	Size	Marking	Elements	Terminal Convex	Termination Material	Packaging	Nominal Resistance	Tolerance
		Blank: Marking N: No Marking		K: Convex type with square corners	T: Sn (Other termination styles may be available, please contact factory for options)	TD: 7" paper tape	2 significant figures + 1 multiplier for ±5% 3 significant figures + 1 multiplier for ±1%	F: ±1% J: ±5%

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

11/12/15

applications and ratings

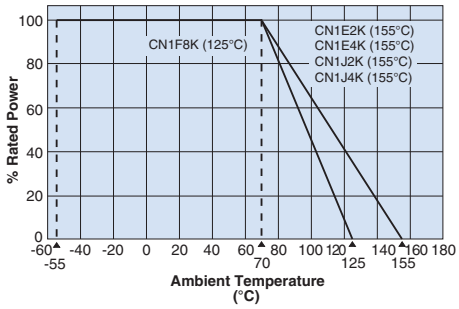
Part Designation	Power Rating @ 70°C (Per Element)	Rated Ambient Temp.	Rated Terminal Temp.	Resistance Range E-24, E-96 (F±1%)	Resistance Range E-24 (J±5%)	T.C.R. (ppm/°C) Max. (F±1%)	T.C.R. (ppm/°C) Max. (J±5%)	Absolute Maximum Working Voltage	Maximum Overload Voltage (5 Secs. Max.)	Operating Temp Range
CN1E2K	1/16W (.063W)	+70°C	+125°C	10Ω - 100kΩ	10Ω - 1MΩ	±200:R≥10Ω	±200:R>10Ω ±400:R<10Ω	25V	50V	-55°C to +155°C
CN1E4K										
CN1J2K						±100:R≥10Ω		50V	100V	
CN1J4K					1Ω - 1MΩ					
CN1F8K	1/16W (.063W) 0.25W per package		——	10Ω - 100kΩ	10Ω - 1MΩ	±200:R≥10Ω		25V	50V	-55°C to +125°C
CN1FN8K										

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

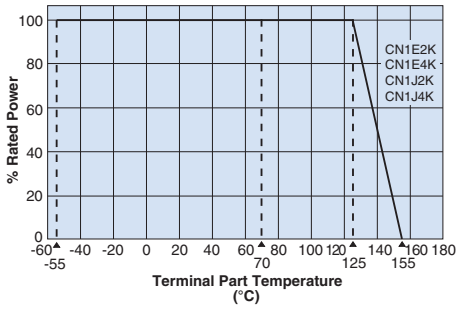
If any questions should arise whether to use the “Rated Ambient Temperature” or the “Rated Terminal Part Temperature,” please give priority to the “Rated Terminal Part Temperature.” Prior to use and for more details refer to “Introduction of the derating curves on the terminal part temperature” in the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

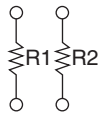


For resistors operated at a terminal part temperature of described for each size or above, a power rating shall be derated in accordance with the derating curve.

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

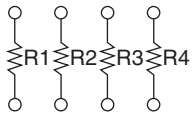
circuit schematic

CN1E2K, CN1J2K



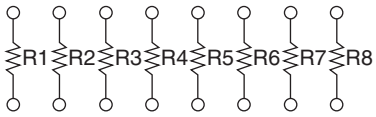
R1 = R2

CN1E4K, CN1J4K



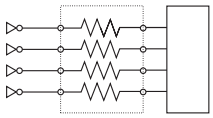
R1 = R2 = R3 = R4

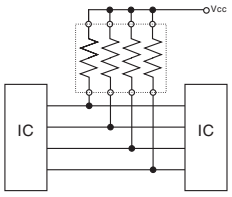
CN1F8K, CN1FN8K



R1 = R2 = R3 = R4 = R5 = R6 = R7 = R8

Circuit Board Application





Performance Characteristics

Parameter	Requirement Δ R Limit	Requirement Δ R Typical	Test Method
Resistance	Within regulated 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%	±0.15%: CN1F8K +0.25: All others	+125°C, 100 hours: CN1F8K +155°C, 100 hours: CN1E2K, CN1E4K, CN1J2K, CN1J4K

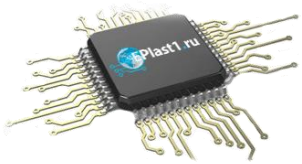
Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)
Факс: 8 (812) 320-02-42
Электронная почта: org@eplast1.ru
Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.