

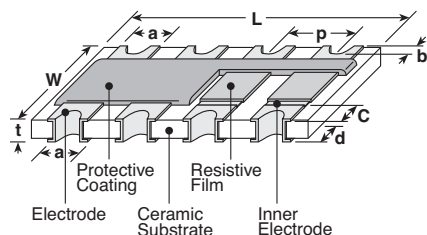
concave termination with square corners resistor array



features

- Manufactured to type RK73 standards
- Less board space than individual chips
- Isolated resistor elements
- Marking: Marked with resistance value
1E, no 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.

dimensions and construction



| Size Code | Dimensions inches (mm) | | | | | | | | |
|-----------|-------------------------|------------------------|------------------------|-------------------------|-------------------------|-------------------------|--------------------------|--------------------------|----------------|
| | L | W | C | d | t | a (top) | a (bot.) | b | p (ref.) |
| 1E2 | .039±.004 (1.0±0.1) | .039±.004 (1.0±0.1) | .008±.004 (0.2±0.1) | .010±.004 (0.25±0.1) | .014±.004 (0.35±0.1) | .012±.004 (0.3±0.1) | .012±.006 (0.3±0.1) | .003±.002 (0.07±0.05) | .020 (0.5) |
| 1E4 | .079±.004 (2.0±0.1) | | | | | | | | |
| 1J2 | .063±.008 (1.6±0.2) | .063±.008 (1.6±0.2) | .012±.008 (0.3±0.2) | .016±.004 (0.4±0.1) | .020±.004 (0.5±0.1) | .016±.006 (0.4±0.15) | .016±.006 (0.4±0.15) | .006±.004 (0.15±0.1) | .031 (0.8) |
| 1J4 | .126±.008 (3.2±0.2) | | | | | | | | |
| 1J8 | .252±.008 (6.4±0.2) | | | | | | | | |
| 2A2 | 0.1±.008 (2.54±0.2) | .079±.008 (2.0±0.2) | .016±.008 (0.4±0.2) | .022±.004 (0.55±0.1) | .024±.004 (0.6±0.1) | .031±.004 (0.8±0.1) | .030±.006 (0.75±0.15) | .006±.004 (0.15±0.1) | .050 (1.27) |
| 2A4 | 0.2±.008 (5.08±0.2) | | | | | | | | |
| 2A8 | 0.4±.008 (10.16±0.2) | | | | | | | | |
| 2B2 | 0.1±.008 (2.54±0.2) | .126±.008 (3.2±0.2) | .020±.012 (0.5±0.3) | .022±.004 (0.55±0.1) | .024±.004 (0.6±0.1) | .031±.004 (0.8±0.1) | .030±.006 (0.75±0.15) | .006±.004 (0.15±0.1) | .050 (1.27) |
| 2B4 | 0.2±.008 (5.08±0.2) | | | | | | | | |
| 2B8 | 0.4±.008 (10.16±0.2) | | | | | | | | |

ordering information

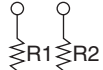
| New Part # | CN | 1J | 4 | T | TD | 101 | J |
|------------|----|----------------------|-------------|--|--|---|----------------------------|
| Type | | Size | Elements | Termination Material | Packaging | Nominal Resistance | Tolerance |
| | | 1E 1J 2A 2B | 2 4 8 | T: Sn (Other termination styles may be 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% G: ±2% J: ±5% |

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

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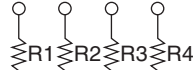
circuit schematic

CN1E2, CN1J2,
CN2A2, CN2B2



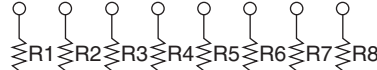
R1 = R2

CN1E4, CN1J4,
CN2A4, CN2B4



R1 = R2 = R3 = R4

CN1J8, CN2A8, CN2B8



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

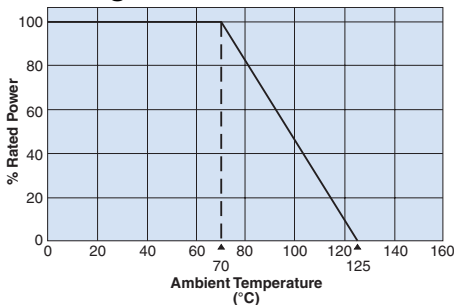
applications and ratings

| Part Designation | Power Rating @ 70°C (Per Element) | T.C.R. (ppm/°C) Max. | Resistance Range (Ω) | | | Absolute Maximum Working Voltage | Maximum Overload Voltage (5 Secs. Max.) | Operating Temperature Range |
|------------------|-----------------------------------|----------------------|----------------------|----------------|--------------|----------------------------------|---|-----------------------------|
| | | | E-24, E-96 (F:±1%) | E-24 (G:±2%) | E-24 (J:±5%) | | | |
| CN1E2 | 1/16W (.063W) | ±200: R≥10Ω | — | — | 10 - 100k | 25V | 50V | -55°C to +125°C |
| CN1E4 | | | 10 - 1M | 10 - 1M | 10 - 1M | 50V | 100V | |
| CN1J2 | | | | | 1 - 1M | 50V | 100V | |
| CN1J4 | 1/16W (.063W) | ±200: R≥10Ω | 10 - 1M | 10 - 1M | 10 - 1M | 100V | 200V | |
| CN1J8 | | | | | 10 - 1M | 100V | 200V | |
| CN2A2 | | | 1/10W (.100W) | ±400: R<10Ω | — | — | 10 - 1M | |
| CN2A4 | 10 - 1M | 10 - 1M | | | 200V | 400V | | |
| CN2A8 | 10 - 1M | 10 - 1M | | | 200V | 400V | | |
| CN2B2 | 1/8W (.125W) | ±400: R<10Ω | — | — | 10 - 1M | 200V | 400V | |
| CN2B4 | | | 10 - 1M | 10 - 1M | 200V | 400V | | |
| CN2B8 | | | 10 - 1M | 10 - 1M | 200V | 400V | | |

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

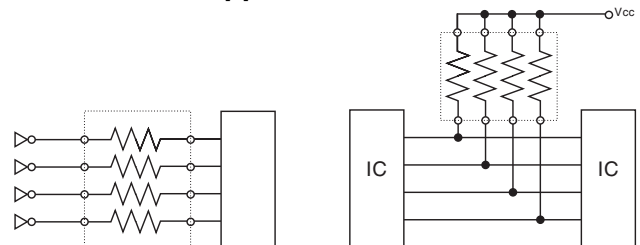
environmental applications

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.

Circuit Board Application



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, +25°C/+125°C |
| Overload (Short time) | ±2.0% | ±0.5% | Rated voltage x 2.5 for 5 seconds |
| Resistance to Solder Heat | ±1.0% | ±0.25% | 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% | ±0.2% | +125°C, 1000 hours |