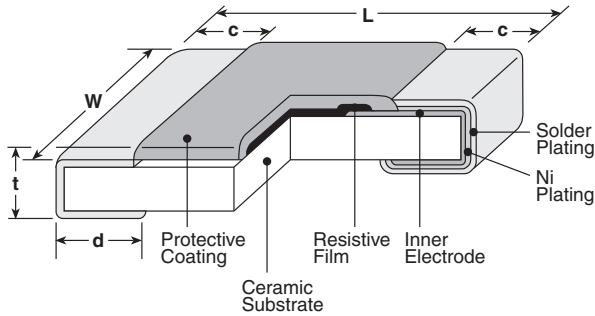


features

- Superior to RK73 series in maximum working voltage
- Marking: White three-digit on black protective coat
1J: no marking
- Products with lead-free terminations meet EU RoHS requirements. Pb located in glass material, electrode and resistor element is exempt per Annex 1, exemption 5 of EU directive 2005/95/EC



dimensions and construction



| Type (Inch Size Code) | Dimensions inches (mm) | | | | |
|--------------------------|------------------------|-------------------------|------------------------|---|-------------------------|
| | L | W | c | d | t |
| 1J (0603) | .063±.008 (1.6±0.2) | .031±.004 (0.8±0.1) | .012±.004 (0.3±0.1) | .012±.004 (0.3±0.1) | .018±.004 (0.45±0.1) |
| 2A (0805) | .079±.008 (2.0±0.2) | .049±.004 (1.25±0.1) | .016±.008 (0.4±0.2) | .012 ^{+0.008} _{-.004} (0.3 ^{+0.2} _{-.01}) | .02±.004 (0.5±0.1) |
| 2B (1206) | .126±.008 (3.2±0.2) | .063±.008 (1.6±0.2) | .02±.012 (0.5±0.3) | .016 ^{+0.008} _{-.004} (0.4 ^{+0.2} _{-.01}) | .024±.004 (0.6±0.1) |
| 2H (2010) | .197±.008 (5.0±0.2) | .098±.008 (2.5±0.2) | .02±.012 (0.5±0.3) | .016 ^{+0.008} _{-.004} (0.4 ^{+0.2} _{-.01}) | .024±.004 (0.6±0.1) |
| 3A (2512) | .248±.008 (6.3±0.2) | .122±.008 (3.1±0.2) | .02±.012 (0.5±0.3) | .016 ^{+0.008} _{-.004} (0.4 ^{+0.2} _{-.01}) | .024±.004 (0.6±0.1) |

ordering information

| New Part # | HV73 | 2B | T | TD | 1004 | F |
|----------------------|------|---|-------|--|--|--|
| Type | | | | | | |
| Size | | 1J: 0.1W 2A: 0.125W 2B: 0.25W 2H: 0.5W 3A: 1W | | | | |
| Termination Material | | | T: Sn | | | |
| Packaging | | | | TD: 0603, 0805, 1206: 7" 4mm pitch punched paper TDD: 0603, 0805, 1206: 10" paper tape TE: 2010 & 2512: 7" punched plastic TED: 2010 & 2512: 10" punched plastic For further information on packaging, please refer to Appendix A | | |
| Nominal Resistance | | | | | ±0.5%, ±1%: 3 significant figures + 1 multiplier ±2%, ±5%: 2 significant figures + 1 multiplier | |
| Resistance Tolerance | | | | | | D: ±0.5% F: ±1% G: ±2% J: ±5% |

applications and ratings

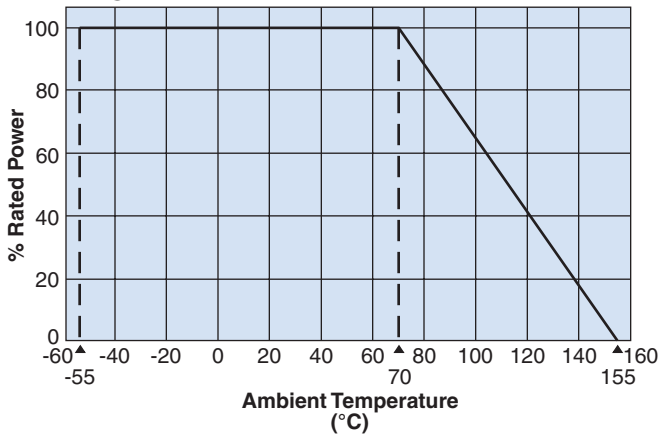
| Part Designation | Power Rating @ 70°C | T.C.R. (ppm/°C) Max. | Resistance Range | | | | Absolute Maximum Working Voltage | Maximum Overload Voltage (D.C.)* | Operating Temperature Range |
|------------------|---------------------|----------------------|------------------|-------------|-------------|-------------|----------------------------------|----------------------------------|-----------------------------|
| | | | E-24 (D±0.5%) | E-24 (F±1%) | E-24 (G±2%) | E-24 (J±5%) | | | |
| 1J | 0.1W | ±100** | — | 10k - 10M | 10k - 10M | 10k - 10M | 350V | 500V* | -55°C to +155°C |
| 2A | 0.125W | ±100 | 100k - 1M | 100k - 10M | 100k - 10M | 100k - 10M | 400V | 800V* | |
| | | ±200 | — | — | — | 11M - 51M | | | |
| 2B | 0.25W | ±100 | 100k - 1M | 100k - 10M | 100k - 10M | 100k - 10M | 500V | 1000V* | |
| | | ±200 | — | — | — | 11M - 51M | | | |
| 2H | 0.5W | ±100 | 100k - 1M | 100k - 10M | 100k - 10M | 100k - 10M | 2000V(*D.C.) | 3000V* | |
| | | ±200 | — | — | — | 11M - 51M | | | |
| 3A | 1W | ±100 | 43k - 1M | 43k - 10M | 43k - 10M | 43k - 10M | 3000V(*D.C.) | 4000V* | |
| | | ±200 | — | 11M - 20M | 11M - 20M | 11M - 51M | | | |

* AC Voltage Reference: When using for A.C. Voltage, use the peak A.C. Voltage, which should not exceed the Maximum DC Overload Voltage (Max. DC Voltage/√2)

** Cold T.C.R. of 1.1MΩ ~ 10MΩ is +200x10⁻⁶/K

environmental applications

Derating Curve



Performance Characteristics

| Parameter | Requirement Δ R | | Test Method |
|-----------------------------|----------------------------|----------------|---|
| | Limit | Typical | |
| Resistance | Within regulated tolerance | — | 25°C |
| T.C.R. | Within specified T.C.R. | — | +25°C/-55°C and +25°C/+125°C |
| Overload (Short time) | ±2% | ±0.5% | Rated Voltage (D.C.) x 2.5 for 5 seconds |
| Resistance to Solder Heat | ±1% | ±0.5% | 260°C ± 5°C, 10 seconds ± 1 second |
| Rapid Change of Temperature | ±0.5%, ±1%* | ±0.3%, ±0.5%** | -55°C (30 minutes), +125°C (30 minutes), 100 cycles |
| Moisture Resistance | ±2% | ±0.75% | 40°C ± 2°C, 90%-95% RH, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle |
| Endurance at 70°C | ±2% | ±0.75% | 70°C ± 2°C, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle |
| High Temperature Exposure | ±2% | ±0.3% | +155°C, 1000 hours |

* ±0.5%: (100kΩ≤R≤10MΩ), ±1%: (11MΩ≤R≤51MΩ)

** ±0.3%: (100kΩ≤R≤10MΩ), ±0.5%: (11MΩ≤R≤51MΩ)

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.

11/07/08