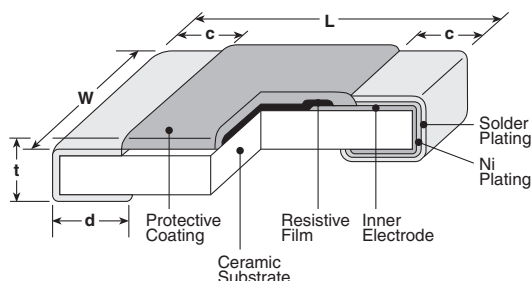


### features

- Anti-leaching nickel barrier terminations
- For high resolution sound and clarity in signal processing and audio circuits
- Marking: Three-digit, light blue on black protective coating
- 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



| Type<br>(Inch Size Code) | Dimensions inches (mm) |                         |                        |                                                                                   |                         |
|--------------------------|------------------------|-------------------------|------------------------|-----------------------------------------------------------------------------------|-------------------------|
|                          | L                      | W                       | c                      | d                                                                                 | t                       |
| <b>1J</b><br>(0603)      | .063±.008<br>(1.6±0.2) | .031±.004<br>(0.8±0.1)  | .012±.004<br>(0.3±0.1) | .012±.004<br>(0.3±0.1)                                                            | .018±.004<br>(0.45±0.1) |
| <b>2A</b><br>(0805)      | .079±.008<br>(2.0±0.2) | .049±.004<br>(1.25±0.1) | .016±.008<br>(0.4±0.2) | .012 <sup>+0.008</sup> <sub>-.004</sub><br>(0.3 <sup>+0.2</sup> <sub>-.01</sub> ) | .02±.004<br>(0.5±0.1)   |
| <b>2B</b><br>(1206)      | .126±.008<br>(3.2±0.2) | .063±.008<br>(1.6±0.2)  | .02±.012<br>(0.5±0.3)  | .016 <sup>+0.008</sup> <sub>-.004</sub><br>(0.4 <sup>+0.2</sup> <sub>-.01</sub> ) | .024±.004<br>(0.6±0.1)  |

### ordering information

| New Part # | RK73A | 1J             | T                                                         | TD                                                                                                                                                                                                                                                                                                          | 102                                                                                     | J                |
|------------|-------|----------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|------------------|
| Type       |       | Size           | Termination Material                                      | Packaging                                                                                                                                                                                                                                                                                                   | Nominal Resistance                                                                      | Tolerance        |
|            |       | 1J<br>2A<br>2B | T: Sn<br>Contact factory<br>for below options:<br>L: SnPb | TP: 0603, 0805:<br>7" 2mm pitch punch paper<br>TD: 0603, 0805, 1206:<br>7" 4mm pitch punched paper<br>TDD: 0603, 0805, 1206:<br>10" paper tape<br>TE: 0805, 1206:<br>7" embossed plastic<br>TED: 0805, 1206:<br>10" embossed plastic<br>For further information on packaging,<br>please refer to Appendix A | 2 significant<br>figures + 1<br>multiplier<br>"R" indicates<br>decimal on<br>value <10Ω | G: ±2%<br>J: ±5% |

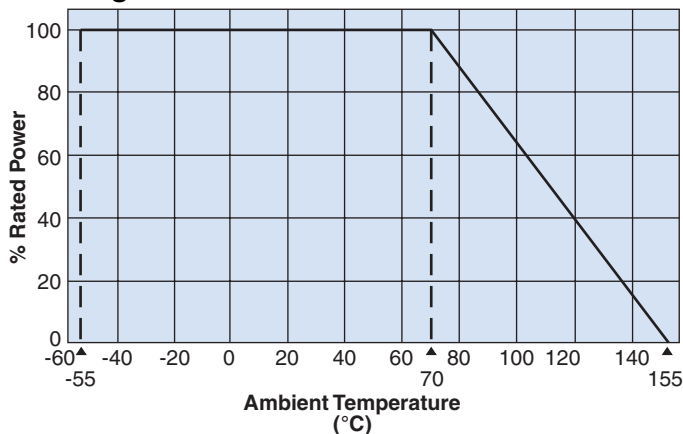
### applications and ratings

| Part Designation* | Power Rating<br>@ 70°C | T.C.R.<br>(ppm/°C)<br>Max. | Resistance<br>Range<br>E-24<br>(G±2%) | Resistance<br>Range<br>E-24<br>(J±5%) | Absolute<br>Maximum<br>Working<br>Voltage | Absolute<br>Maximum<br>Overload<br>Voltage | Operating<br>Temperature<br>Range |
|-------------------|------------------------|----------------------------|---------------------------------------|---------------------------------------|-------------------------------------------|--------------------------------------------|-----------------------------------|
| RK73A1J<br>(0603) | 1/10W (.10W)           | ±200                       | 10Ω - 1MΩ                             | 10Ω - 1MΩ                             | 50V                                       | 100V                                       | -55°C to +155°C                   |
|                   |                        | ±250                       | 2.2Ω - 9.1Ω                           | 2.2Ω - 9.1Ω                           |                                           |                                            |                                   |
| RK73A2A<br>(0805) | 1/8W (.125W)           | ±200                       | 10Ω - 1MΩ                             | 10Ω - 1MΩ                             | 150V                                      | 200V                                       |                                   |
|                   |                        | ±250                       | 2.2Ω - 9.1Ω                           | 2.2Ω - 9.1Ω                           |                                           |                                            |                                   |
| RK73A2B<br>(1206) | 1/4W (.25W)            | ±200                       | 10Ω - 1MΩ                             | 10Ω - 1MΩ                             | 200V                                      | 400V                                       |                                   |
|                   |                        | ±250                       | 2.2Ω - 9.1Ω                           | 2.2Ω - 9.1Ω                           |                                           |                                            |                                   |

\* Parentheses indicate EIA package size codes.

### 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.

### environmental applications

#### Performance Characteristics

| Parameter                   | Requirement $\Delta R \pm(\%+0.05\Omega)$ | Limit                         | Typical | Test Method                                                                |
|-----------------------------|-------------------------------------------|-------------------------------|---------|----------------------------------------------------------------------------|
| Resistance                  | Within specified tolerance                | —                             | —       | 25°C                                                                       |
| T.C.R.                      | Within specified T.C.R.                   | —                             | —       | +25°C/-55°C and +25°C/+125°C                                               |
| Overload (Short time)       | ±2%                                       | ±2%                           | ±2%     | Rated Voltage x 2.5 for 5 seconds<br>(2B: Rated Voltage x 2 for 5 seconds) |
| Resistance to Solder Heat   | ±1%, ±3%:<br>(R<10Ω, R>1MΩ)               | ±0.5%, ±1%:<br>(R<10Ω, R>1MΩ) | —       | 260°C ± 5°C, 10 seconds ± 1 second                                         |
| Rapid Change of Temperature | ±0.5%                                     | ±0.3%                         | —       | -55°C (30 minutes), +125°C (30 minutes), 100 cycles                        |
| Moisture Resistance         | ±2%                                       | ±1%                           | —       | 40°C ± 2°C, 90%-95% RH, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle            |
| Endurance at 70°C           | ±2%                                       | ±0.5%                         | —       | 70°C ± 2°C, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle                        |
| High Temperature Exposure   | ±1%                                       | ±0.5%                         | —       | +155°C, 1000 hours                                                         |