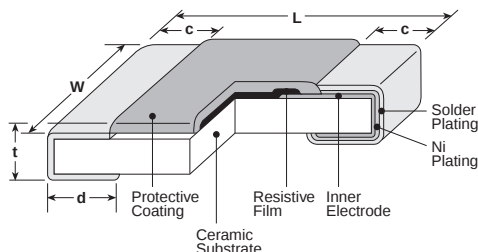


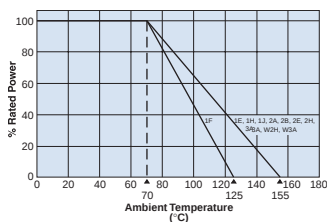
## features

- 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: 0201 (1H), 0402 (1E), 0603 (1J), 0805 (2A), 1206 (2B), 1210 (2E), 2010 (2H/W2H), 2512 (3A/W3A/W3A2)

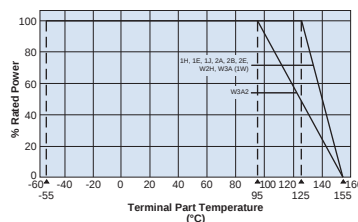
## dimensions and construction



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

| Type*<br>(Inch Size Code) | Dimensions inches (mm)                                                           |                          |                         |                                                                                   |                           |
|---------------------------|----------------------------------------------------------------------------------|--------------------------|-------------------------|-----------------------------------------------------------------------------------|---------------------------|
|                           | L                                                                                | W                        | c                       | d                                                                                 | t                         |
| <b>1F</b><br>(01005)      | .016±.0008<br>(0.4±0.02)                                                         | .008±.0008<br>(0.2±0.02) | .004±.001<br>(0.1±0.03) | .004±.001<br>(0.11±0.03)                                                          | .005±.0008<br>(0.13±0.02) |
| <b>1H</b><br>(0201)       | .024±.001<br>(0.6±0.03)                                                          | .012±.001<br>(0.3±0.03)  | .004±.002<br>(0.1±0.05) | .006±.002<br>(0.15±0.05)                                                          | .009±.001<br>(0.23±0.03)  |
| <b>1E</b><br>(0402)       | .039 <sup>+0.04</sup> <sub>-.002</sub><br>(1.0 <sup>+0.1</sup> <sub>-.05</sub> ) | .02±.002<br>(0.5±0.05)   | .008±.004<br>(0.2±0.1)  | .01 <sup>+0.02</sup> <sub>-.004</sub><br>(0.25 <sup>+0.05</sup> <sub>-.01</sub> ) | .014±.002<br>(0.35±0.05)  |
| <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)    |
| <b>2E</b><br>(1210)       |                                                                                  | .102±.008<br>(2.6±0.2)   |                         |                                                                                   |                           |
| <b>2H</b><br>(2010)       | .197±.008<br>(5.0±0.2)                                                           | .098±.008<br>(2.5±0.2)   |                         |                                                                                   |                           |
| <b>W2H</b><br>(2010)      |                                                                                  |                          |                         |                                                                                   |                           |
| <b>3A</b><br>(2512)       | .248±.008<br>(6.3±0.2)                                                           | .122±.008<br>(3.1±0.2)   |                         | .026±.006<br>(0.65±0.15)                                                          |                           |
| <b>W3A/W3A2</b><br>(2512) |                                                                                  |                          |                         | .016 <sup>+0.008</sup> <sub>-.004</sub><br>(0.4 <sup>+0.2</sup> <sub>-.01</sub> ) |                           |
|                           |                                                                                  |                          |                         | .026±.006<br>(0.65±0.15)                                                          |                           |

\* Parentheses indicate EIA package size codes.

## ordering information

| RK73H | 2B                                                                       | T                                                                                                                                         | TD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1003                                                                         | F                  |
|-------|--------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|--------------------|
| Type  | Size                                                                     | Termination Material                                                                                                                      | Packaging                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Nominal Resistance                                                           | Tolerance          |
|       | 1F<br>1H<br>1E<br>1J<br>2A<br>2B<br>2E<br>W2H<br>W3A<br>2H<br>3A<br>W3A2 | T: Sn<br>(1F ~ W3A2)<br>Contact factory for below options:<br>L: SnPb<br>(1E, 1J, 2A, 2B, 2E, 2H, 3A)<br>G: Au<br>(1E ~ 2A:<br>10Ω ~ 1MΩ) | TX: 01005 only: 4mm width - 1mm pitch plastic embossed<br>TBL: 01005 only: 2mm pitch pressed paper<br>TC: 0201 only: 7" 2mm pitch pressed paper<br>(TC: 10,000 pcs/reel, TCM: 15,000 pcs/reel)<br>TCD: 0201 only: 10" 2mm pitch pressed paper<br>TPD: 0402 only: 10" 2mm pitch plastic embossed<br>TPL: 0402 only: 2mm pitch punch paper<br>TP: 0402, 0603, 0805: 7" 2mm pitch punch paper<br>TD: 0603, 0805, 1206, 1210:<br>7" 4mm pitch punched paper<br>TDD: 0603, 0805, 1206, 1210: 10" paper tape<br>TE: 0805, 1206, 1210, 2010 & 2512:<br>7" embossed plastic<br>TED: 0805, 1206, 1210, 2010 & 2512: 10" embossed plastic<br>For further information on packaging, please refer to Appendix A | 3 significant figures + 1 multiplier<br>"R" indicates decimal on value <100Ω | D: ±0.5%<br>F: ±1% |



KOA SPEER ELECTRONICS, INC.

## applications and ratings

RK73H

precision 0.5%, 1% tolerance  
thick film chip resistor

| Part Designation   | Power Rating | Rated Ambient Temp. | Rated Terminal Part Temp. | T.C.R. (x10 <sup>-6</sup> /K)  | Resistance Range               |                                | Maximum Working Voltage | Maximum Overload Voltage | Operating Temperature Range |
|--------------------|--------------|---------------------|---------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------|--------------------------|-----------------------------|
|                    |              |                     |                           |                                | D±0.5% E-24, E-96              | F±1% E-24, E-96*               |                         |                          |                             |
| RK73H1F (01005)    | 0.03W        | 70°C                | —                         | ±200                           | —                              | 100kΩ - 2MΩ*                   | 20V                     | 30V                      | -55°C to +125°C             |
|                    | ±250         |                     |                           | —                              | 10Ω - 91kΩ*                    |                                |                         |                          |                             |
| RK73H1H (0201)     | 0.05W        |                     | 125°C                     | ±200                           | 10Ω - 1MΩ                      | 10Ω - 10MΩ*                    | 25V                     | 50V                      | -55°C to +155°C             |
|                    | ±400         |                     |                           | —                              | 1.0Ω - 9.1Ω*                   |                                |                         |                          |                             |
| RK73H1E (0402)     | 0.1W         |                     | ±100                      | 10Ω - 1MΩ                      | 10Ω - 1MΩ                      | 75V                            | 100V                    |                          |                             |
|                    |              |                     | ±200                      | —                              | 1.0Ω - 9.76Ω<br>1.02MΩ - 10MΩ  |                                |                         |                          |                             |
| RK73H1J (0603)     | 0.1W         |                     | ±100                      | 1.02kΩ - 1MΩ                   | 1.02kΩ - 1MΩ                   | 75V                            |                         |                          |                             |
|                    | 0.125W       |                     | ±200                      | —                              | 1.02MΩ - 10MΩ                  |                                |                         |                          |                             |
|                    |              |                     | ±100                      | 10Ω - 1kΩ                      | 10Ω - 1kΩ                      |                                |                         |                          |                             |
|                    |              |                     | ±200                      | —                              | 1.0Ω - 9.76Ω                   |                                |                         |                          |                             |
| RK73H2A (0805)     | 0.25W        |                     | ±100                      | 10Ω - 1MΩ                      | 10Ω - 1MΩ                      | 150V                           | 200V                    |                          |                             |
|                    |              |                     | ±200                      | —                              | 1.0Ω - 9.76Ω                   |                                |                         |                          |                             |
|                    |              |                     | ±400                      | —                              | 1.02MΩ - 10MΩ                  |                                |                         |                          |                             |
| RK73H2B (1206)     | 0.25W        |                     | ±100                      | 10Ω - 1MΩ                      | 10Ω - 1MΩ                      | 200V                           | 400V                    |                          |                             |
|                    |              |                     | ±200                      | —                              | 1.0Ω - 9.76Ω<br>1.02MΩ - 5.6MΩ |                                |                         |                          |                             |
|                    |              |                     | ±400                      | —                              | 5.62MΩ - 10MΩ                  |                                |                         |                          |                             |
| RK73H2E (1210)     | 0.5W         |                     | ±100                      | 10Ω - 1MΩ                      | 10Ω - 1MΩ                      |                                |                         |                          |                             |
|                    |              |                     | ±200                      | —                              | 1.0Ω - 9.76Ω<br>1.02MΩ - 5.6MΩ |                                |                         |                          |                             |
|                    |              |                     |                           | —                              | 5.62MΩ - 10MΩ                  |                                |                         |                          |                             |
|                    |              |                     | ±400                      | —                              | 5.62MΩ - 10MΩ                  |                                |                         |                          |                             |
| RK73HW2H/2H (2010) | 0.75W        |                     | ±100                      | 10Ω - 1MΩ                      | 10Ω - 1MΩ                      |                                |                         |                          |                             |
|                    |              |                     | ±200                      | —                              | 1.0Ω - 9.76Ω<br>1.02MΩ - 5.6MΩ |                                |                         |                          |                             |
|                    |              |                     | ±400                      | —                              | 5.62MΩ - 10MΩ                  |                                |                         |                          |                             |
| RK73HW3A/3A (2512) | 1.0W         |                     | ±100                      | 10Ω - 1MΩ                      | 10Ω - 1MΩ                      | 200V                           | 400V                    |                          |                             |
|                    |              | ±200                | —                         | 1.0Ω - 9.76Ω<br>1.02MΩ - 5.6MΩ |                                |                                |                         |                          |                             |
|                    |              | ±400                | —                         | 5.62MΩ - 10MΩ                  |                                |                                |                         |                          |                             |
| RK73HW3A2 (2512)   | 2.0W         | —                   | 95°C                      | ±100                           | 10Ω - 1MΩ                      | 10Ω - 1MΩ                      | 200V                    | 400V                     |                             |
|                    |              |                     |                           | ±200                           | —                              | 1.0Ω - 9.76Ω<br>1.02MΩ - 5.6MΩ |                         |                          |                             |
|                    |              |                     |                           | ±400                           | —                              | 5.62MΩ - 10MΩ                  |                         |                          |                             |