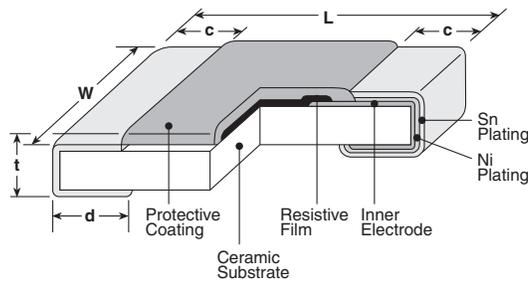


## features

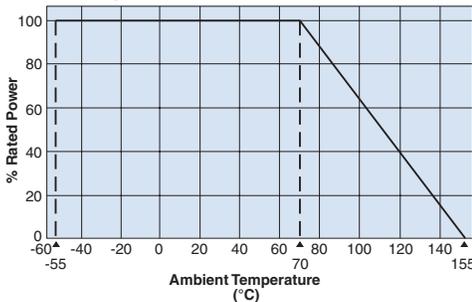
- Excellent anti-sulfuration characteristic due to using high sulfuration-proof inner top electrode material
- Metal-glaze thick film resistor for surface mounting
- High precision resistor with T.C.R.  $\pm 50 \times 10^{-6}/K$  and tolerance  $\pm 0.25\%$
- Suitable for both flow and reflow solderings
- 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 Tested

## dimensions and construction

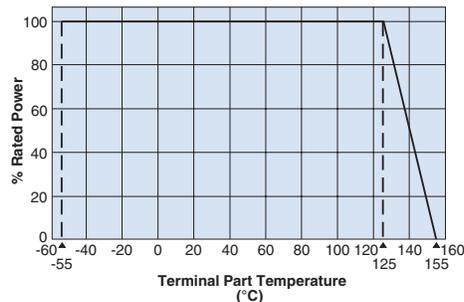


Type (Inch Size Code)	Dimensions inches (mm)				
	L	W	c	d	t
<b>1E</b> (0402)	.039 <sup>+0.004</sup> <sub>-.002</sub> (1.0 <sup>+0.1</sup> <sub>-0.05</sub> )	.02±.002 (0.5±0.05)	.008±.004 (0.2±0.1)	.01 <sup>+0.002</sup> <sub>-.004</sub> (0.25 <sup>+0.05</sup> <sub>-0.1</sub> )	.014±.002 (0.35±0.05)
<b>1J</b> (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)
<b>2A</b> (0805)	.079±.008 (2.0±0.2)	.049±.004 (1.25±0.1)	.016±.008 (0.4±0.2)	.012 <sup>+0.008</sup> <sub>-.004</sub> (0.3 <sup>+0.2</sup> <sub>-0.1</sub> )	.02±.004 (0.5±0.1)
<b>2B</b> (1206)	.126±.008 (3.2±0.2)	.063±.008 (1.6±0.2)	.02±.012 (0.5±0.3)	.016 <sup>+0.008</sup> <sub>-.004</sub> (0.4 <sup>+0.2</sup> <sub>-0.1</sub> )	.024±.004 (0.6±0.1)

## Derating Curve



For resistors operated at an ambient temperature of 70°C or above, a power rating shall be derated in accordance with the derating curve.



For resistors operated 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" in the beginning of our catalog before use.

## ordering information

<b>RK73G</b>	<b>2A</b>	<b>R</b>	<b>T</b>	<b>TD</b>	<b>1002</b>	<b>D</b>
Type	Size	Characteristic	Termination Material	Packaging	Nominal Resistance	Tolerance
	1E: 0.1W 1J: 0.1W 2A: 0.125W 2B: 0.25W	R: Anti-Sulfur	T: Sn	TPL: 0402 only: 2mm pitch punched paper TP: 0402, 0603: 7" 2mm pitch punched paper TD: 0603, 0805, 1206: 7" 4mm pitch punched paper TE: 0805, 1206: 7" 4mm plastic embossed For further information on packaging, please refer to Appendix A	3 significant figures + 1 multiplier "R" indicates decimal on value <100Ω	C: ±0.25% D: ±0.5% F: ±1%

### applications and ratings

Part Designation	Power Rating	Rated Ambient Temp.	Rated Terminal Part Temp.	T.C.R. (X 10 <sup>-6</sup> /K)	Resistance Range			Maximum Working Voltage	Maximum Overload Voltage	Operating Temperature Range
					E-24, E-96 (C±0.25%)	E-24, E-96 (D±0.5%)	E-24, E-96 (F±1%)			
RK73G1E (0402)	1/10W (.10W)	+70°C	+125°C	±50	—	30Ω - 1MΩ	30Ω - 1MΩ	50V	100V	-55°C to +155°C
RK73G1J (0603)	1/10W (.10W)				75V			150V		
RK73G2A (0805)	1/8W (.125W)				100Ω - 1MΩ			150V	200V	
RK73G2B (1206)	1/4W (.25W)				200V			400V		

Rated voltage =  $\sqrt{\text{Power rating} \times \text{resistance value}}$  or max. working voltage, whichever is lower

If any questions 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 in the terminal part temperature" in the beginning of the catalog.

### environmental applications

#### Performance Characteristics

Parameter	Requirement $\Delta R \pm(\%+0.1\Omega)$		Test Method
	Limit	Typical	
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%	±0.6%	Rated Voltage x 2.5 for 5 seconds (1E, 2B: Rated Voltage x 2 for 5 seconds)
Resistance to Solder Heat	±1%	±0.4%	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%: 1J, 2A, 2B ±3%: 1E	±0.6%: 1J, 2A, 2B; ±1%: 1E	40°C ± 2°C, 90%-95% RH, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
Endurance at 70°C	±2%: 1J, 2A, 2B ±3%: 1E	±0.6%: 1J, 2A, 2B; ±1%: 1E	70°C ± 2°C, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
High Temperature Exposure	±1%	±0.6%	+155°C, 1000 hours
Sulfuration Test	±5%	±0.2%	Soaked in industrial oil with sulfur substance 3.5% contained 105°C ± 3°C, 500 hours

Please refer to conventional products for characteristic data such as temperature rise.

For Surface Temperature Rise Graph see Environmental Applications. Additional environmental applications can also be found at [www.koaspeer.com](http://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.

11/06/19