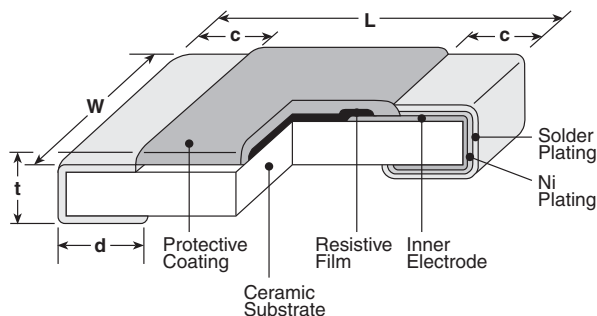


## features

- Superior to RK73 series in maximum working voltage
- Marking: 1J: No marking, black protective coating  
2A ~ 3A: White three-digit marking 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 (Inch Size Code)	Dimensions inches (mm)				
	L	W	c	d	t
<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>+.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>+.008</sup> <sub>-.004</sub> (0.4 <sup>+.0.2</sup> <sub>-.0.1</sub> )	.024±.004 (0.6±0.1)
<b>2H</b> (2010)	.197±.008 (5.0±0.2)	.098±.008 (2.5±0.2)	.02±.012 (0.5±0.3)	.016 <sup>+.008</sup> <sub>-.004</sub> (0.4 <sup>+.0.2</sup> <sub>-.0.1</sub> )	.024±.004 (0.6±0.1)
<b>3A</b> (2512)	.248±.008 (6.3±0.2)	.122±.008 (3.1±0.2)	.02±.012 (0.5±0.3)	.016 <sup>+.008</sup> <sub>-.004</sub> (0.4 <sup>+.0.2</sup> <sub>-.0.1</sub> )	.024±.004 (0.6±0.1)

## ordering information

New Part #	HV73	2B	T	TD	1004	F
	Type	Size	Termination Material	Packaging	Nominal Resistance	Resistance Tolerance
		1J: 0.1W 2A: 0.125W 2B: 0.25W 2H: 0.5W 3A: 1W	T: Sn	TD: 0603, 0805, 1206: 7" 4mm pitch punched paper TDD: 0603, 0805, 1206: 10" paper tape TE: 2010 & 2512: 7" embossed plastic TED: 2010 & 2512: 10" embossed plastic For further information on packaging, please refer to Appendix A	±0.5%, ±1%: 3 significant figures + 1 multiplier ±2%, ±5%: 2 significant figures + 1 multiplier	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 (Ω)				Absolute Maximum Working Voltage	Maximum Overload Voltage (D.C.)*	Rated Terminal Part Temp.	Operating Temp. Range
			E-24/E-96 (D±0.5%)	E-24/E-96 (F±1%)	E-24 (G±2%)	E-24 (J±5%)				
1J	0.1W	±100**	—	10k - 10M	10k - 10M	10k - 10M	350V	500V*	80°C	-55°C to +155°C
2A	0.125W (0.25W)***	±100	100k - 1M	100k - 10M	100k - 10M	100k - 10M	400V	800V*	85°C	
		±200	—	—	—	11M - 51M				
2B	0.25W	±100	100k - 1M	100k - 10M	100k - 10M	100k - 10M	500V	1000V*	100°C	
		±200	—	—	—	11M - 51M				
2H	0.5W	±100	100k - 1M	100k - 10M	100k - 10M	100k - 10M	2000V (*D.C.)	3000V*	90°C	
		±200	—	—	—	11M - 51M				
3A	1W	±100	43k - 1M	43k - 10M	43k - 10M	43k - 10M	3000V (*D.C.)	4000V*	105°C	
		±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 +200×10<sup>-6</sup>/K

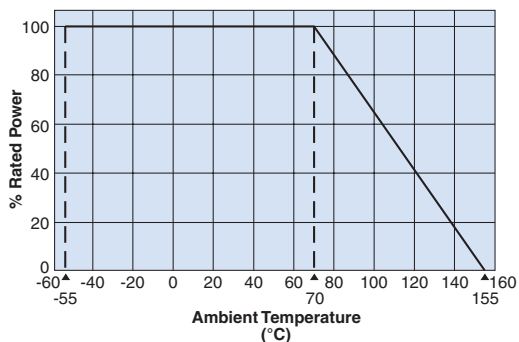
\*\*\* Please refer to the "Higher Power Ratings" statement in the beginning of the catalog. Also, contact KOA prior to usage and for the max. working voltage and max. overload voltage.

Rated ambient temperature: +70°C

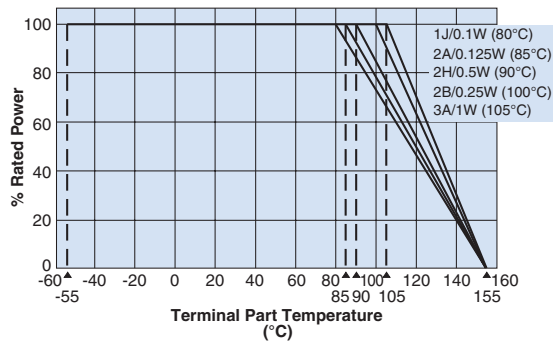
Rated voltage = √Power rating x resistance value or max. working voltage, whichever is lower

### 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.



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" on the beginning of our catalog before use.

### Performance Characteristics

Parameter	Requirement Δ R ±(%+0.1Ω)		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%: (10kΩ≤R≤10MΩ) ±1%: (11MΩ≤R≤51MΩ)	±0.3%: (10kΩ≤R≤10MΩ) ±0.5%: (11MΩ≤R≤51MΩ)	-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

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.

12/05/14