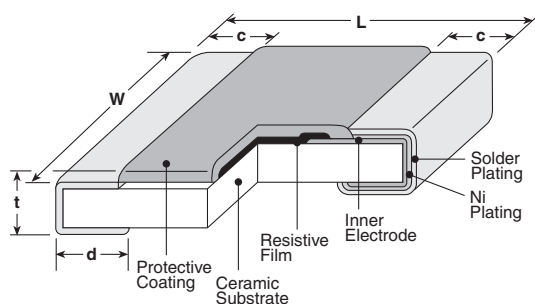


### features

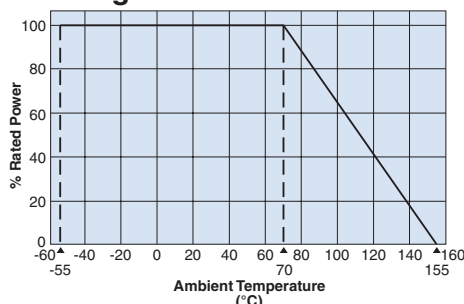
- Wide-side termination (reverse-geometry) type flat chip resistor
- High reliability and performance with T.C.R.  $\pm 100 \times 10^{-6}/K$ , resistance tolerance  $\pm 1\%$
- Products with lead-free terminations meet EU RoHS requirements. EU RoHS regulation is not intended for Pb-glass contained in electrode, resistor element and glass.
- AEC-Q200 Qualified

### dimensions and construction

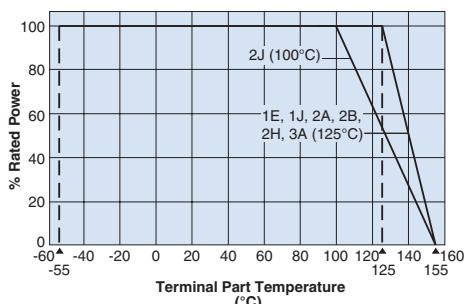


	Type	Dimensions inches (mm)				
	(Inch Size Code)	L	W	c	d	t
NEW	1E (0204)	.020±.002 (0.5±0.05)	.039±.002 (1.0±0.05)	.004±.002 (0.1±0.05)	.006±.002 (0.15±0.05)	.014±.002 (0.35±0.05)
NEW	1J (0306)	.031±.004 (0.8±0.1)	.063±.004 (1.6±0.1)	.006±.004 (0.15±0.1)	.008±.004 (0.2±0.1)	.018±.004 (0.45±0.1)
NEW	2A (0508)	.049±.006 (1.25±0.15)	.079±.006 (2.0±0.15)	.012±.008 (0.3±0.2)	.014±.008 (0.35±0.2)	.022±.004 (0.55±0.1)
	2B (0612)	.063±.006 (1.6±0.15)	.126±.008 (3.2±0.2)	.012±.008 (0.3±0.2)	.018±.006 (0.45±0.15)	.024±.004 (0.6±0.1)
	2H (1020)	.098±.006 (2.5±0.15)	.197±.006 (5.0±0.15)	.016±.008 (0.4±0.2)	.030±.006 (0.75±0.15)	
	2J (1218)	.122±.006 (3.1±0.15)	.181±.006 (4.6±0.15)	.016±.008 (0.4±0.2)		
	3A (1225)	.122±.006 (3.1±0.15)	.252±.006 (6.3±0.15)	.018±.008 (0.45±0.2)		

### Derating Curve



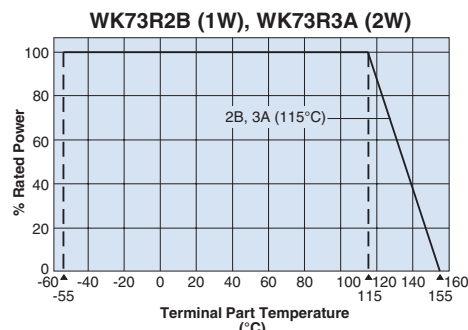
For resistors operated at an ambient temperature of 70°C or above, a power rating shall be derated in accordance with the above derating curve.



For resistors operated terminal temperature of described for each size or above, a power rating shall be derated in accordance with the derating curve above.

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

If you want to use at rated power (\*1), use derating curves based on the terminal part temperature on the right side graph.



### ordering information

WK73R	2J	T	TE	33L0	F
Type	Size	Termination Material	Packaging	Nominal Resistance	Resistance Tolerance
WK73R	New 1E: 0.33W New 1J: 0.5W New 2A: 0.75W, 1W 2B: 0.75W, 1W 2H: 1W 2J: 1W 3A: 1.5W, 2W	T: Sn	TP: 0204: 7" 2mm pitch punched paper TD: 0306, 0508, 0612: 7" 4mm pitch punched paper TE: 1020, 1218, 1225: 7" embossed plastic TED: 1020, 1218, 1225: 10" embossed plastic For further information on packaging, please refer to Appendix A	±1%: 3 significant figures + 1 multiplier "R" indicates decimal on value <100Ω ±5%: 2 significant figures + 1 multiplier "R" indicates decimal on values <10Ω All values less than 0.1Ω (100mΩ) are expressed in mΩ with "L" as decimal. Ex: 33mΩ, 1% = 33L0	D: ±0.5% F: ±1% J: ±5%

## 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 (Ω)			Maximum Working Voltage	Maximum Overload Voltage	Operating Temp. Range
						D±0.5% E-24/E-96	F±1% E-24/E-96	J±5% E-24			
NEW	WK73R1E	0.33W <sup>1</sup>	—	125°C	±100	—	10 -1M	10 - 1M	75V	100V	-55°C to +155°C
NEW	WK73R1J	0.5W <sup>1</sup>	—	125°C	±100	—	10 - 1M	10 - 1M	150V	200V	
NEW	WK73R2A	0.75W <sup>1</sup>	—	125°C	±100	—	20.5k - 1M	22k - 1M	200V	400V	
		1.0W <sup>1</sup>	—	125°C	±100	—	10 - 20k	10 - 20k			
	WK73R2B	0.75W	70°C	125°C	±100	10 - 1M	10 - 1M	10 - 1M	200V	400V	
		1.0W <sup>1</sup>	—	115°C	±100	10 - 9.76k	10 - 9.76k	10 - 9.1k			
	WK73R2H	1.0W	70°C	125°C	±100	—	10 - 430k	10 - 430k	200V	400V	
					±200	—	432k - 1M	470k - 1M			
	WK73R2J	1.0W	70°C	100°C	±100	—	10 - 510k	10 - 510k	200V	400V	
					±200	—	511k - 1M	560k - 1M			
	WK73R3A	1.5W	70°C	125°C	±100	—	10 - 330k	10 - 330k	200V	400V	
					±200	—	332k - 1M	360k - 1M			
		2.0W <sup>1</sup>	—	115°C	±100	—	10 - 330k	10 - 330k			
					±200	—	332k - 1M	360k - 1M			

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

<sup>1</sup> If you want to use at rated power use derating curves based on the terminal part temperature on the right side graph located on previous page. 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." For more details refer to the "Introduction of the derating curves based on the terminal part temperature" in the beginning of the catalog

## environmental applications

### Performance Characteristics

Parameter	Requirement Δ R ±(%+0.005Ω)		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%	±0.2%	WK73R1E (0.33W), WK73R1J (0.5W), WK73R2A (0.75W, 1W)WK73R3A (2W): Rated voltage x2.0 for 5 seconds. WK73R2B, R2H, R2J, R3A: Rated voltage x2.5 for 3 seconds
Resistance to Solder Heat	±1%	±0.2%	260°C ± 5°C, 10 seconds ± 1 second
Bending Test	±1%	±0.1%	Holding point 90mm, Bending 1 time, Bending 5mm
Rapid Change of Temperature	±0.5%	±0.3%	-55°C (30 minutes), +125°C (30 minutes), 100 cycles
Moisture Resistance	±3%: 1E ±2%: All others	±1%: 1E ±0.2%: All others	40°C ± 2°C, 90%-95% RH, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
Endurance at 70°C	±3%: 1E ±2%: All others	±1%: 1E ±0.2%: All others	70°C ± 2°C, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
High Temperature Exposure	±1%	±0.2%	+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.

10/25/18

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