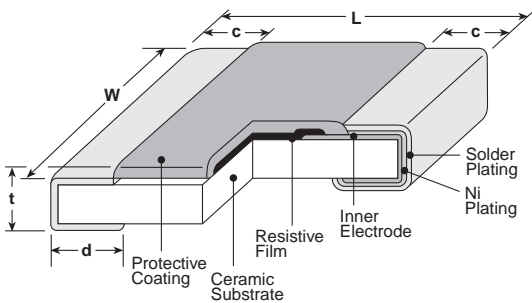




**features**

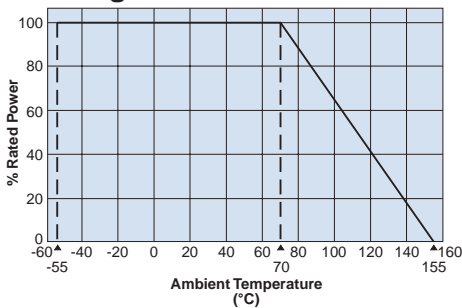
- Wide-side termination (reverse-geometry) type flat chip resistor
- High reliability and performance with T.C.R.  $\pm 100 \times 10^{-6}/K$ , resistance tolerance  $\pm 1\%$
- Products with lead-free terminations meet EU RoHS requirements. EU RoHS regulation is not intended for Pb-glass contained in electrode, resistor element and glass.
- AEC-Q200 Qualified: 0508 (1W), 0612(2B/2B15), 1020(2H), 1218(2J), 1225(3A)

**dimensions and construction**

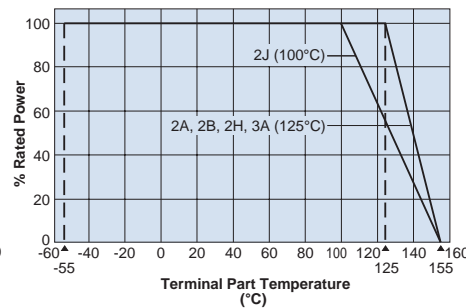


Type (Inch Size Code)	Dimensions inches (mm)				
	L	W	c	d	t
<b>NEW</b> 2A (0508)	.063±.006 (1.25±0.15)	.079±.006 (2.0±0.15)	.012±.008 (0.3±0.2)	.014±.008 (0.35±0.2)	.022±.004 (0.55±0.1)
2B (0612)	.063±.006 (1.6±0.15)	.126±.008 (3.2±0.2)	.012±.008 (0.3±0.2)	.018±.006 (0.45±0.15)	.024±.004 (0.6±0.1)
2H (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**



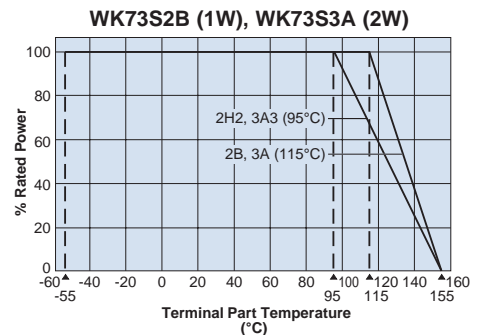
For resistors operated at an ambient temperature of 70°C or above, a power rating shall be derated in accordance with the above derating curve.



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**

<b>WK73S</b>	<b>2J</b>	<b>T</b>	<b>TE</b>	<b>33L0</b>	<b>F</b>
<b>Type</b>	<b>Size</b>	<b>Termination Material</b>	<b>Packaging</b>	<b>Nominal Resistance</b>	<b>Resistance Tolerance</b>
WK73S	New 2A: 1W 2B: 0.75W, 1W 2H: 1W 2J: 1W 3A: 1.5W, 2W	T: Sn	TD: 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

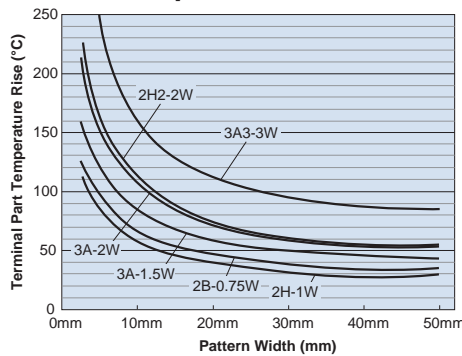
Part Designation	Power Rating	Rated Ambient Temp.	Rated Terminal Part Temp.	T.C.R. (X 10 <sup>-6</sup> /K)	Resistance Range (Ω)			Maximum Working Voltage	Maximum Overload Voltage	Operating Temp. Range
					D±0.5% E-24/E-96	F±1% E-24/E-96	J±5% E-24			
WK73S2A	1.0W <sup>1</sup>	—	125°C	±100	—	1 - 9.76	1 - 9.1	200V	400V	-55°C to +155°C
				0~+200	—	100m - 976m	100m - 910m			
WK73S2B	0.75W	70°C	125°C	±800	—	—	10m - 27m	200V	400V	
				±200	—	30m - 422m	30m - 390m			
				±100	430m - 9.76	430m - 9.76	430m - 9.1			
	1.0W <sup>1</sup>	—	115°C	±800	—	—	10m - 27m			
				±200	—	30m - 422m	30m - 390m			
				±100	430m - 9.76	430m - 9.76	430m - 9.1			
WK73S2H	1.0W	70°C	125°C	±800	—	—	10m - 24m	200V	400V	
				±200	—	27m - 215m	27m - 200m			
				±100	—	220m - 9.76	220m - 9.1			
WK73S2J	1.0W	70°C	100°C	±800	—	—	10m - 30m	200V	400V	
				±200	—	33m - 237m	33m - 220m			
				±100	—	240m - 9.76	240m - 9.1			
WK73S3A	1.5W	70°C	125°C	±800	—	—	10m - 20m	200V	400V	
				±300	—	22m - 32.4m	22m - 30m			
				±200	—	33m - 357m	33m - 330m			
				±100	—	360m - 9.76	360m - 9.1			
	2.0W <sup>1</sup>	—	115°C	±800	—	—	10m - 20m			
				±300	—	22m - 32.4m	22m - 30m			
				±200	—	33m - 357m	33m - 330m			
				±100	—	360m - 9.76	360m - 9.1			

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

## Device Temperature Data



Room Temperature 25°C PCB: FR-4 t=1.6mm Cu foil thickness=35μm  
While using under high power, the temperature of the product may increase depending on the condition of heat dissipation from PCB. Be sure to check the terminal part temperature as well as precautions for use on delivery specifications before use.

## 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%	WK73S2A (1W), WK73S2B (1W), WK73S3A (2W): Rated voltage x2.0 for 5 seconds. WK73S2B, S2H, S2J, S3A: 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), +155°C (30 minutes), 5 cycles
Moisture Resistance	±2%	±0.2%	40°C ± 2°C, 90%-95% RH, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
Endurance at 70°C	±2%	±0.2%	70°C ± 2°C, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
High Temperature Exposure	±2%: WK73S (±5%) ±1%: all others	±0.5%: WK73S (±5%) ±0.2%: all others	+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.

7/02/18