

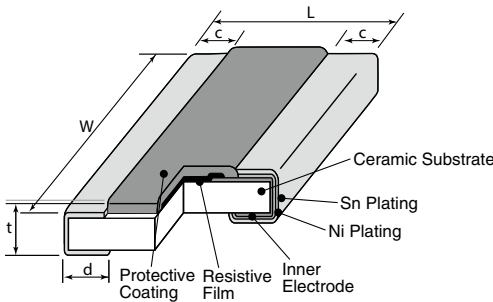
## wide terminal type flat chip resistors (anti sulfuration)



### features

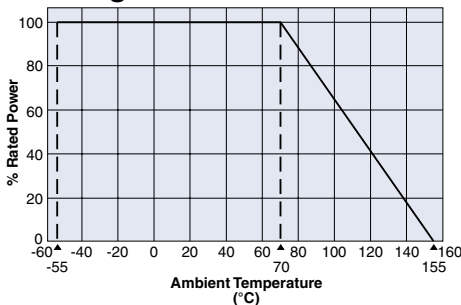
- Anti-sulfuration type, wide-side termination (reverse-geometry) type flat chip resistor
- Excellent anti-sulfuration characteristic due to using high sulfuration-proof inner top electrode material
- Suitable for both flow and reflow solderings
- Marking: Black coating color
- This products meet EU RoHS requirements. EU RoHS regulation is not intended for Pb-glass contained in electrode, resistor element and glass.
- AEC-Q200 Qualified

### dimensions and construction

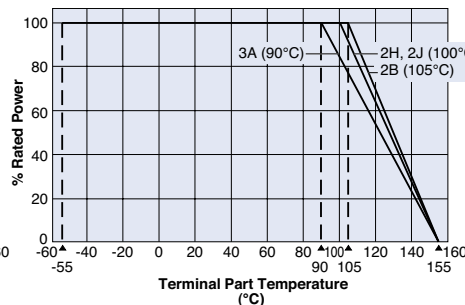


Type (Inch Size Code)	Dimensions inches (mm)				
	L	W	c	d	t
<b>2B (0612)</b>	.063 <sup>+0.004</sup> <sub>-0.008</sub> (1.6 <sup>+0.1</sup> <sub>-0.2</sub> )	.126 <sup>+0.004</sup> <sub>-0.012</sub> (3.2 <sup>+0.1</sup> <sub>-0.3</sub> )	.012 <sup>±0.008</sup> (0.3 <sup>±0.2</sup> )	.018 <sup>±0.006</sup> (0.45 <sup>±0.15</sup> )	.024 <sup>±0.004</sup> (0.6 <sup>±0.1</sup> )
<b>2H (1020)</b>	.098 <sup>+0.004</sup> <sub>-0.008</sub> (2.5 <sup>+0.1</sup> <sub>-0.2</sub> )	.197 <sup>+0.004</sup> <sub>-0.008</sub> (5.0 <sup>+0.1</sup> <sub>-0.2</sub> )	.016 <sup>±0.008</sup> (0.4 <sup>±0.2</sup> )	.030 <sup>±0.006</sup> (0.75 <sup>±0.15</sup> )	
<b>2J (1218)</b>	.122 <sup>+0.004</sup> <sub>-0.008</sub> (3.1 <sup>+0.1</sup> <sub>-0.2</sub> )	.181 <sup>+0.004</sup> <sub>-0.008</sub> (4.6 <sup>+0.1</sup> <sub>-0.2</sub> )	.016 <sup>±0.008</sup> (0.4 <sup>±0.2</sup> )	.030 <sup>±0.006</sup> (0.75 <sup>±0.15</sup> )	.024 <sup>±0.004</sup> (0.6 <sup>±0.1</sup> )
<b>3A (1225)</b>	.122 <sup>+0.008</sup> <sub>-0.004</sub> (3.1 <sup>+0.2</sup> <sub>-0.1</sub> )	.248 <sup>±0.006</sup> (6.3 <sup>±0.15</sup> )	.018 <sup>±0.008</sup> (0.45 <sup>±0.2</sup> )	.030 <sup>±0.006</sup> (0.75 <sup>±0.15</sup> )	

### Derating Curve



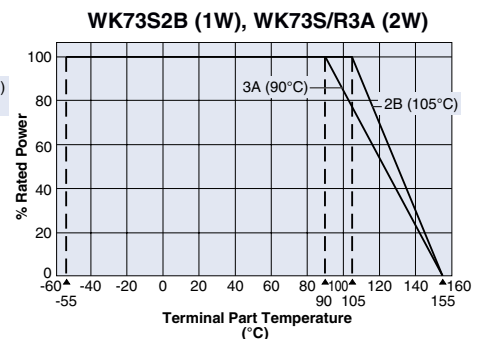
For resistors operated at an ambient temperature of 70°C or above, a power rating shall be derated in accordance with the above derating curve.



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

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

When using Power Rating', please use the derating curves based on the terminal part temperature on the right side.



### ordering information

New Part #	WK73R	R2B	RT	TD	10R0	F
Type	WK73S WK73R	Size	Termination Material	Packaging	Nominal Resistance*	Resistance Tolerance
		2B: 0.75W, 1W 2H: 1W 2J: 1W 3A: 1.5W, 2W	RT : Sn	TD: 4mm pitch punched paper TE: 4mm pitch embossed plastic For further information on packaging, please refer to Appendix A	±1%: 4 digits ±5%: 3 digits	F: ±1% J: ±5%

\* Resistance value, 3 digits:  
1~9.1Ω, 1R0~9R1  
Resistance value, 4 digits:  
1~9.76Ω, 1R00~9R76

Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use.

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## applications and ratings

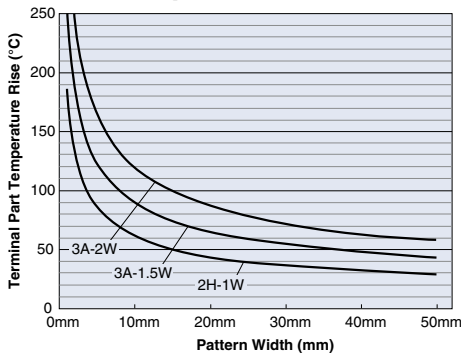
Part Designation	Power Rating	Rated Ambient Temperature	Rated Terminal Part Temperature	T.C.R. (X 10 <sup>-6</sup> /K)	Resistance Range (Ω)		Maximum Working Voltage	Maximum Overload Voltage	Operating Temperature Range
					F±1% E-24 • E-96	J±5% E-24			
WK73S2B	0.75W	70°C	105°C	±100	1 ~ 9.76	1~9.1	200V	400V	-55°C to +155°C
	1.0W <sup>1</sup>	—	105°C	±100	1 ~ 9.76	1~9.1			
WK73R2B	0.75W	70°C	105°C	±100	10 ~ 9.76k	10 ~ 9.1k	200V	400V	
WK73S2H	1.0W	70°C	100°C	±200	10k ~ 1M	10k ~ 1M			
WK73R2H	1.0W	70°C	100°C	±100	10 ~ 9.76	1 ~ 9.1	200V	400V	
WK73S2J	1.0W	70°C	100°C	±200	10 ~ 430k	10 ~ 430k			
WK73R2J	1.0W	70°C	100°C	±100	432k - 1M	470k - 1M	200V	400V	
WK73S3A	1.5W	70°C	90°C	±100	1 ~ 9.76	1 ~ 9.1			
	2.0W <sup>1</sup>	—	90°C	±100	1 ~ 9.76	1 ~ 9.1	200V	400V	
WK73R3A	1.5W	70°C	90°C	±100	10 ~ 330k	10 ~ 330k			
	2.0W <sup>1</sup>	—	90°C	±200	332k - 1M	360k - 1M			
				±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> When using Power Rating, please use the derating curves based on the terminal part temperature on the right side of the graph located on the previous page.

## environmental applications

### 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.

### Performance Characteristics

Parameter	Requirement $\Delta R \pm(\%+0.005\Omega)$		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%	±0.2%	WK732B, S2H, R2H, S2J, R2J: Rated voltage x 2.5 for 5 seconds WK73S2B (1W), WK73S/R3A: Rated voltage x 2.0 for 5 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	±1%: another	±0.2%: another	+155°C, 1000 hours
Sulfuration Test	±5%	—	Soaked in industrial oil with 3.5% sulfur concentration 105°C ± 3°C, 500 hours

Additional environmental applications can also be found at [www.koaspeer.com](http://www.koaspeer.com)

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