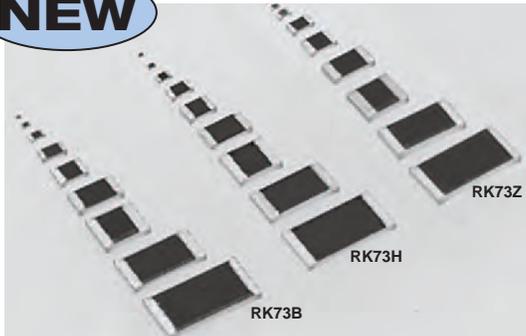


NEW

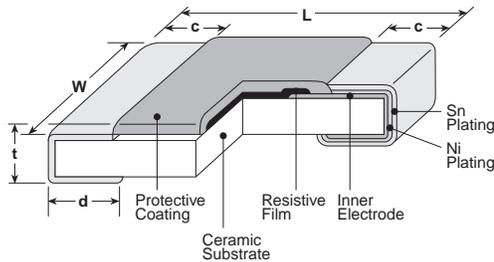


Coating Color - Black

features

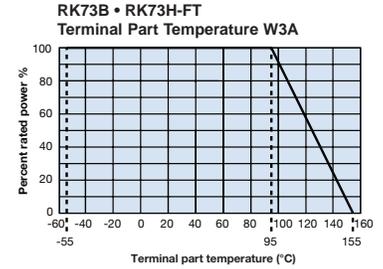
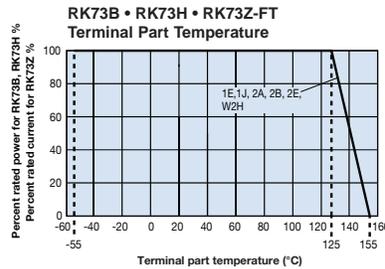
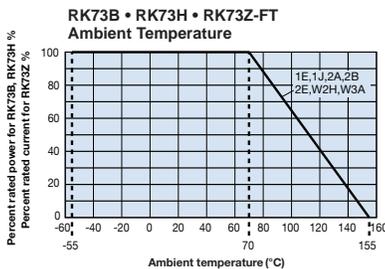
- Lead-free resistor-meets RoHS thresholds without exemption
- Excellent heat resistance and weather resistance are ensured by the use of metal glaze thick film.
- Suitable for both flow and reflow solderings.
- These products meet EU RoHS requirements.

dimensions and construction



Type (Inch Size Code)	Dimensions inches (mm)				
	L	W	c	d	t
1E (0402)	.039 ^{+0.004} _{-0.002} (1.0 ^{+0.1} _{-0.05})	.02±.002 (0.5±0.05)	.008±.004 (0.2±0.1)	.01 ^{+0.002} _{-0.004} (0.25 ^{+0.05} _{-0.1})	.014±.002 (0.35±0.05)
1J (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)
2A (0805)	.079±.008 (2.0±0.2)	.049±.004 (1.25±0.1)	.016±.008 (0.4±0.2)	.012 ^{+0.008} _{-0.004} (0.3 ^{+0.2} _{-0.1})	.02±.004 (0.5±0.1)
2B (1206)	.126±.008 (3.2±0.2)	.063±.008 (1.6±0.2)	.02±.012 (0.5±0.3)	.016 ^{+0.008} _{-0.004} (0.4 ^{+0.2} _{-0.1})	.024±.004 (0.6±0.1)
2E (1210)		.102±.008 (2.6±0.2)			
W2H (2010)		.098±.008 (2.5±0.2)			
W3A (2512)	.197±.008 (5.0±0.2)	.122±.008 (3.1±0.2)		.026±.006 (0.65±0.15)	

Derating Curve



For resistors operated at an ambient temperature of 70°C or higher, the power (for RK73B, RK73H) or a current rating (for RK73Z) shall be derated in accordance with the above derating curve.

When the terminal part temperature of the resistor exceeds the rated terminal part temperature shown above, the power shall be derated according to the derating curve.

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

ordering information

RK73H	2A	F	T	TD	1003	F
Product Code	Size	Additional Mark	Terminal Surface Material	Taping	Nominal Resistance	Resistance Tolerance
RK73B RK73H	1E 2E 1J W2H 2A W3A 2B	F: Lead Free	T: Sn	TP: 2mm pitch punch paper TD: 4mm pitch punch paper TE: 4mm pitch plastic embossed	RK73B: 3digits RK73H: 4 digits	F: ±1% J: ±5%
RK73Z	2A	F	T	TD	Contact us when you have a control request for environmental material other than the substance specified by EU-RoHS. For further information on taping, Please refer to Appendix A.	
Product Code	Size	Additional Mark	Terminal Surface Material	Taping		
RK73Z	1E 2E 1J W2H 2A W3A 2B	F: Lead Free	T: Sn	TP: 2mm pitch punch paper TD: 4mm pitch punch paper TE: 4mm pitch plastic embossed		

applications and ratings

RK73B, RK73H

Type	Power Rating	Rated Ambient Temp.	Rated Terminal Part Temp.	T.C.R. (x10 ⁻⁶ /K)	Resistance Range (Ω)		Max. Working Voltage	Max. Overload Voltage	Operating Temp. Range
					RK73H F: ±1% E24, E96	RK73B J: ±5% E24			
1E (0402)	0.1W	70°C	125°C	±100	1k~1M	—	75V	100V	-55~+155°C
1J (0603)	0.1W	70°C	125°C	±200	10~976	1~10M			
2A (0805)	0.25W	70°C	125°C	±100	100~1M	—	150V	200V	
				±200	10~97.6	1~10M			
2B (1206)	0.25W	70°C	125°C	±100	100~1M	—	200V	400V	
				±200	10~97.6	1~10M			
2E (1210)	0.33W	70°C	125°C	±100	100~1M	—	200V	400V	
				±200	10~97.6	1~10M			
W2H (2010)	0.5W	70°C	125°C	±100	10~1M	—	200V	400V	
				±200	—	1~10M			
W3A (2512)	2W*1	70°C	95°C	±100	10~1M	—	200V	400V	
				±200	—	1~10M			

Operating Temperature Range: -55°C ~ +155°C

Rated voltage = $\sqrt{\text{Power Rating} \times \text{Resistance value}}$ or Max. working voltage, whichever is lower.

*1 If you use at the rated power, please keep the condition that the terminal of the resistor is below the rated terminal part temperature.

Please refer to the derating curves based on the terminal temperature of right side on the previous page.

If any questions arise whether to use the "Rated Ambient Temperature" or the "Rated Terminal Part Temperature" in your usage conditions, please give priority to the "Rated Terminal Part Temperature".

For more details, please refer to "Introduction of the derating curves based on the terminal part temperature" in the beginning of the catalog.

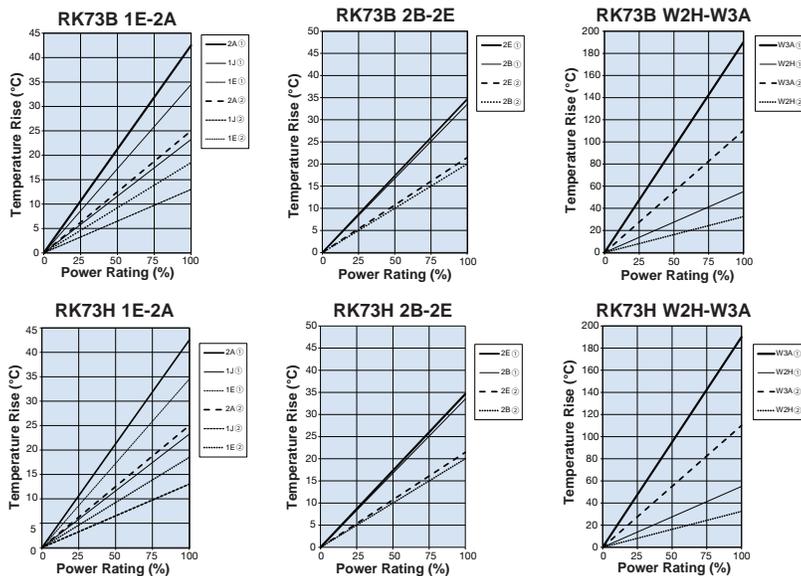
While using under high power, the temperature of the product may increase depending on the condition of heat dissipation from PCB.

Be sure to check the terminal part temperature as well as precautions to use on delivery specifications before use.

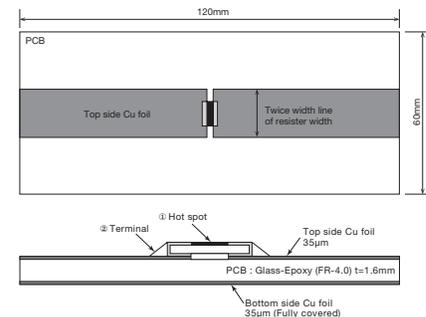
RK73Z

Type	Rated Ambient Temp.	Rated Terminal Part Temp.	Resistance	Current Rating	Max. Overload Current	Operating Temp. Range
1E (0402)	70°C	125°C	50mΩmax.	1A	2A	-55~+155°C
1J (0603)					5A	
2A (0805)					10A	
2B (1206)	70°C	125°C	50mΩmax.	2A	2A	
2E (1210)					5A	
W2H (2010)					10A	
W3A (2512)					10A	

environmental applications - Temperature Rise



Simulated and Measurement Conditions



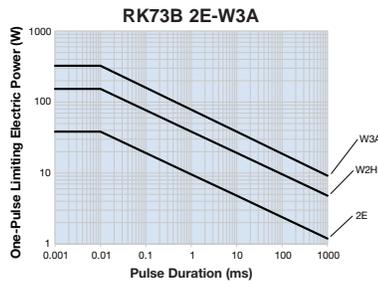
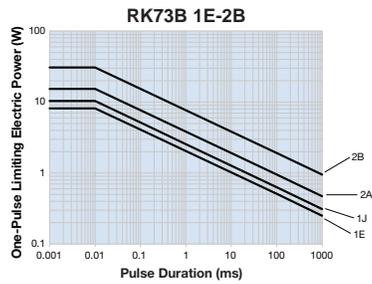
Temperature rise is simulated and measured under our conditions. So, the values will vary depending on the operating conditions and PCB used.

This data is a reference value to show the temperature rise under specific PCB conditions. And does not guarantee or recommend use under the described PCB conditions and load power conditions. If the terminal part temperature when power is loaded to the resistor exceeds the rated terminal part temperature, please reduce the load according to the derating curve based on the terminal part temperature.

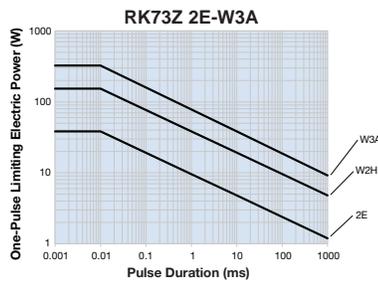
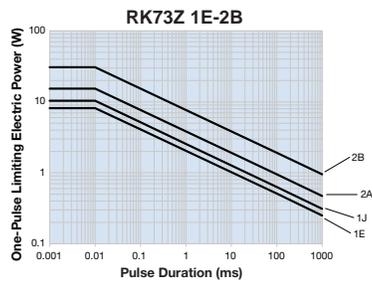
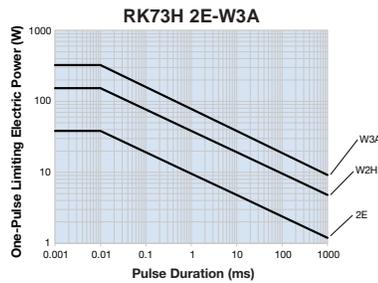
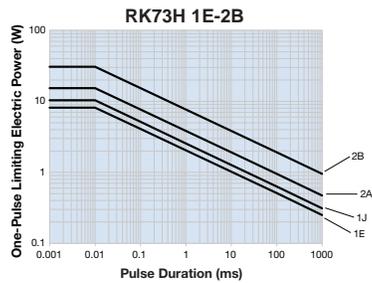
Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use.

2/19/26

environmental applications - One-Pulse Limiting Electric Power



The maximum applicable voltage is equal to the max. overload voltage. Please ask us about the resistance characteristic of continuous applied pulse. The pulse endurance values are not assured values, so be sure to check the products on actual equipment when you use them.



Please ask us about the resistance characteristic of continuous applied pulse. Please calculate One-Pulse Limiting Electric Power using upper limit of resistance (50mΩ) for supplied current. The pulse endurance values are not assured values, so be sure to check the products on actual equipment when you use them.

Performance Characteristics

Test Items	RK73H, RK73B		RK73Z		Test Methods
	Performance Requirements $\Delta R \pm (\%+0.1\Omega)$		Performance Requirements		
	Limit	Typical	Limit	Typical	
Resistance	Within specified tolerance	—	$R \leq 50m\Omega$	$R \leq 40m\Omega$	25°C
T.C.R.	Within specified T.C.R.	—	—	—	+25°C/−55°C and +25°C/ +125°C
Overload (Short time)	2	0.8	$R \leq 50m\Omega$	$R \leq 40m\Omega$	RK73B, RK73H : Rated voltage x 2.5 for 5s (1E, 2B, W3A: Rated voltage x 2 for 5s) Max. overload current, 5S
Resistance to Soldering Heat	1: $10\Omega \leq R \leq 1M\Omega$ 3: $R < 10\Omega, R > 1M\Omega$	0.5: $10\Omega \leq R \leq 1M\Omega$ 1: $R < 10\Omega, R > 1M\Omega$	$R \leq 50m\Omega$	$R \leq 40m\Omega$	260°C±5°C, 10s±1s
Rapid Change of Temperature	0.5	0.3	$R \leq 50m\Omega$	$R \leq 40m\Omega$	−55°C (30min.)/+125°C (30min.) 100 cycles
Moisture Resistance	2: 1J, 2A, 2B 3: others	0.75: 1J, 2A, 2B 1: others	$R \leq 100m\Omega$	$R \leq 50m\Omega$	40°C±2°C, 90%~95%RH, 1000 hours 1.5 hrs. ON 0.5 hrs. OFF cycle
Endurance at 70°C or rated Terminal Part Temperature	2: 1J, 2A, 2B 3: others	0.75: 1J, 2A, 2B 1: others	$R \leq 100m\Omega$	$R \leq 50m\Omega$	70°C±2°C or rated terminal temperature ±2°C 1000 hours 1.5 hrs. ON 0.5 hrs. OFF cycle
High Temperature Exposure	1	0.5	$R \leq 100m\Omega$	$R \leq 50m\Omega$	+155°C, 1000 hours