

applications and ratings

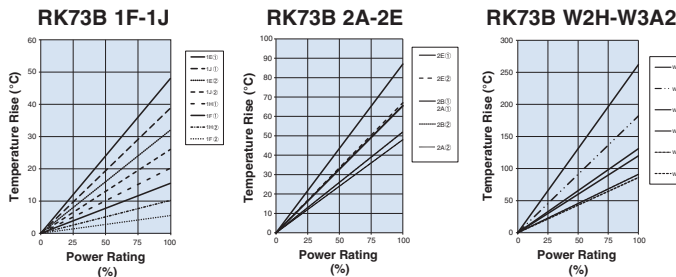
Part Designation	Power Rating	Rated Ambient Temp.	Rated Terminal Part Temp.	T.C.R. (x10 ⁻⁶ /K)	Resistance Range		Maximum Working Voltage	Maximum Overload Voltage	Operating Temperature Range		
					G±2% E-24	J±5% E-24					
RK73B1F (01005)	0.03W	70°C	125°C	±200	100kΩ - 1MΩ	100kΩ - 10MΩ	20V	30V	-55°C to +125°C		
					±250	10Ω - 91kΩ				10Ω - 91kΩ	
					0~+300	1Ω - 9.1Ω				1Ω - 9.1Ω	
RK73B1H (0201)	0.05W					±200	10Ω - 10MΩ	10Ω - 10MΩ		25V	50V
RK73B1E (0402)	0.1W					±400	—	1Ω - 9.1Ω			
RK73B1J (0603)	0.1W					±200	1Ω - 10MΩ	1Ω - 10MΩ		75V	100V
	0.125W					±400	—	11MΩ - 22MΩ			
RK73B2A (0805)	0.25W					±200	1Ω - 1kΩ	1Ω - 1kΩ		150V	200V
						±200	1Ω - 1MΩ	1Ω - 1MΩ			
RK73B2B (1206)	0.25W					±200	1Ω - 5.6MΩ	1Ω - 5.6MΩ		200V	400V
						±400	6.2MΩ - 10MΩ	6.2MΩ - 22MΩ			
RK73B2E (1210)	0.50W					±200	10Ω - 5.6MΩ	1Ω - 5.6MΩ		200V	400V
						±400	—	6.2MΩ - 10MΩ			
RK73BW2H/2H (2010)	0.75W					±200	10Ω - 5.6MΩ	1Ω - 5.6MΩ		200V	400V
						±400	—	6.2MΩ - 22MΩ			
RK73BW3A/3A (2512)	1.0W					±200	10Ω - 5.6MΩ	1Ω - 5.6MΩ		200V	400V
				±400	—	6.2MΩ - 22MΩ					
RK73BW3A2 (2512)	2.0W		95°C	±200	10Ω - 5.6MΩ	1Ω - 5.6MΩ	200V	400V			
				±400	—	6.2MΩ - 22MΩ					

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

If any questions arise on 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." Prior to use and for more details, refer to "Introduction of the derating curves based on the terminal part temperature" in the beginning of our catalog. Temperature rise at high power will depend on PCB layout. Be sure to contact factory prior to use and monitor terminal part temperature.

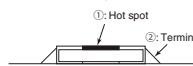
environmental applications

Temperature Rise

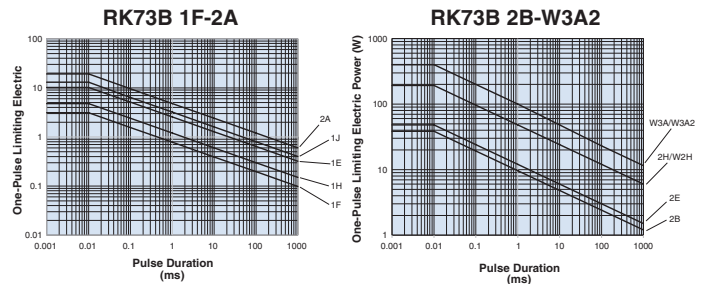


Regarding the temperature rise, the value of the temperature varies per conditions and board for use since the temperature is measured under our measuring conditions.

Measurement condition
 Room temperature: 25°C
 PCB: FR-4t = 1.6mm
 Cu foil thickness: 35μm



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.

Performance Characteristics

Parameter	Requirement ΔR (%+0.1Ω)		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%	±1%: 1F ±0.5%: Another	Rated Voltage x 2.5 for 5 seconds (1E, 2B, W3A2: Rated Voltage x 2 for 5 seconds)
Resistance to Soldering Heat	±1%: 1F-W3A2 (10Ω≤R≤1MΩ) ±3%: 1F-W3A2 (R<10Ω, R>1MΩ)	±0.5%: 1F-W3A2 (10Ω≤R≤1MΩ); ±1%: 1F-W3A2 (R<10Ω, R>1MΩ)	260°C ± 5°C, 10 seconds ± 1 second
Rapid Change of Temperature	±1%: 1F ±0.5%: Another	±0.5%: 1F ±0.3%: Another	-55°C (30 minutes), +125°C (30 minutes), 100 cycles
Moisture Resistance	±2%: 1J, 2A, 2B ±3%: Another	±0.75%: 1J, 2A, 2B ±1.5%: 1F; ±1%: Another	40°C ± 2°C, 90%-95% RH, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
Endurance at 70°C	±2%: 1J, 2A, 2B ±3%: Another	±0.75%: 1J, 2A, 2B ±1%: Another	70°C ± 2°C, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
High Temperature Exposure	±1%	±0.5%: 1F ±0.3%: Another	+125°C, 1000 hours: 1F; +155°C, 1000 hours: 1E, 1H, 1J, 2A, 2B, 2E, 2H/W2H, 3A/W3A/W3A2

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

10/19/20