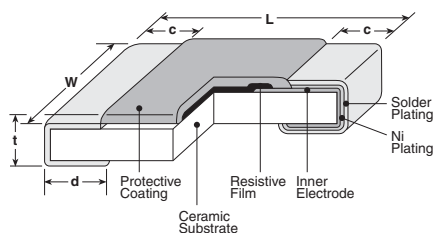


features

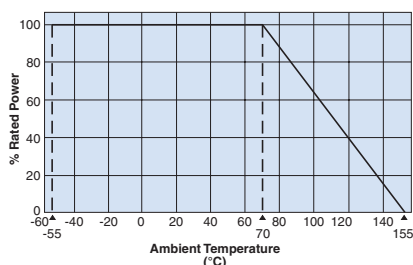
- Excellent anti-sulfuration characteristic due to using high sulfuration-proof inner top electrode material
- Excellent heat resistance and weather resistance are ensured by the use of metal glaze thick film
- High stability and high reliability with the triple-layer structure of electrode
- Marking: Z1E: Green protective coating
RK73B1E ~ W3A, RK73Z1J ~ W3A: Black protective coating
RK73H1E ~ W3A: Blue protective coating
- 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: 0402 (1E), 0603 (1J), 0805 (2A), 1206 (2B), 1210 (2E), 2010 (W2H), 2512 (W3A)



dimensions and construction



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.

Type (Inch Size Code)	Dimensions inches (mm)				
	L	W	c	d	t
1E (0402)	.039 ^{+0.004} / _{-.002} (1.0 ^{+0.1} / _{-0.05})	.02±.002 (0.5±0.05)	.008±.004 (0.2±0.1)	.01 ^{+0.002} / _{-.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} / _{-.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} / _{-.004} (0.4 ^{+0.2} / _{-0.1})	.024±.004 (0.6±0.1)
2E (1210)		.102±.008 (2.6±0.2)			
W2H (2010)	.197±.008 (5.0±0.2)	.098±.008 (2.5±0.2)			
W3A (2512)	.248±.008 (6.3±0.2)	.122±.008 (3.1±0.2)		.023±.006 (0.65±0.15)	

ordering information

New Part #	RK73H	2A	RT	TD	1002	F
Type	RK73B RK73H RK73Z	1E 1J 2A 2B 2E W2H W3A	Termination Surface Material RT: Sn Anti-Sulfur	Packaging TPL: 0402 only: 2mm pitch punch paper TP: 0402, 0603, 0805: 7" 2mm pitch punch paper TD: 0603, 0805, 1206, 1210: 7" 4mm pitch punched paper TDD: 0603, 0805, 1206, 1210: 10" paper tape TE: 0805, 1206, 1210, 2010 & 2512: 7" embossed plastic TED: 0805, 1206, 1210, 2010 & 2512: 10" embossed plastic For further information on packaging, please refer to Appendix A	Nominal Resistance RK73B: 3 digits RK73H: 4 digits RK73Z: None	Resistance Tolerance D: ±0.5% F: ±1% G: ±2% J: ±5%

applications and ratings

Part Designation	Power Rating @ 70°C	T.C.R. (ppm/°C) Max.	Resistance Range				Maximum Working Voltage	Maximum Overload Voltage	Rated Ambient Temp.	Operating Temp. Range		
			RK73H		RK73B							
			E24, E96 (D±0.5%)	E24, E96 (F±1%)	E24 (G±2%)	E24 (J±5%)						
RK73B1E RK73H1E	0.063W	±200	—	1.02MΩ - 10MΩ	10Ω - 10MΩ	1Ω - 10MΩ	50V	100V	+70°C	-55°C to +155°C		
		±100	100Ω - 1MΩ	10Ω - 1MΩ	—	—						
RK73B1J RK73H1J	0.1W	±200	—	1.02MΩ - 10MΩ	10Ω - 10MΩ	1Ω - 10MΩ						
		±100	100Ω - 1MΩ	10Ω - 1MΩ	—	—						
RK73B2A RK73H2A	0.125W	±200	—	1.02MΩ - 10MΩ	10Ω - 10MΩ	1Ω - 10MΩ	150V	200V				
		±100	100Ω - 1MΩ	10Ω - 1MΩ	—	—						
RK73B2B RK73H2B	0.25W	±200	—	1.02MΩ - 10MΩ	10Ω - 10MΩ	1Ω - 10MΩ	200V	400V				
		±100	100Ω - 1MΩ	10Ω - 1MΩ	—	—						
RK73B2E RK73H2E	0.5W	±200	—	—	10Ω - 1kΩ	1Ω - 1kΩ						
	0.33W				1.1kΩ - 1MΩ	1.1kΩ - 1MΩ						
	0.5W	±100	100Ω - 1kΩ	10Ω - 1kΩ	—	—						
	0.33W		1.02kΩ - 1MΩ	1.02kΩ - 1MΩ	—	—						
RK73BW2H RK73HW2H	0.75W	±200	—	1.02MΩ - 10MΩ	10Ω - 10MΩ	1Ω - 10MΩ						
		±100	10Ω - 1MΩ	10Ω - 1MΩ	—	—						
RK73BW3A RK73HW3A	1W	±200	—	1.02MΩ - 10MΩ	10Ω - 10MΩ	1Ω - 10MΩ						
		±100	10Ω - 1MΩ	10Ω - 1MΩ	—	—						

Part Designation*	Resistance	Current Rating	Maximum Surge Current	Rated Ambient Temperature	Operating Temperature Range
RK73Z1E	50mΩ max.	1A	2A	+70°C	-55°C to +155°C
RK73Z1J		2A			
RK73Z2A			5A		
RK73Z2B			10A		
RK73Z2E					
RK73ZW2H					
RK73ZW3A					

environmental applications

Performance Characteristics

Parameter	RK73H, RK73B Requirement Δ R ±(%+0.1Ω)		RK73Z Requirement		Test Method
	Limit	Typical	Limit	Typical	
Resistance	Within specified tolerance	—	R≤50mΩ	R≤40mΩ	25°C
T.C.R.	Within specified T.C.R.	—	N/A	N/A	+25°C/-55°C and +25°C/+125°C
Overload (Short time)	±2%	±0.8%	R≤50mΩ	R≤40mΩ	RK73B, RK73H Rated Voltage x 2.5 for 5 seconds (2B: Rated Voltage x 2 for 5 seconds) RK73Z: Max. surge current for 5 seconds
Resistance to Solder Heat	±1%: 10Ω≤R≤1MΩ; ±3%: R<10Ω, R>1MΩ	±1%: R<10Ω, R>1MΩ; ±0.5%: All others	R≤50mΩ	R≤40mΩ	260°C ± 5°C, 10 seconds ± 1 second
Rapid Change of Temperature	±0.5%	±0.3%	R≤50mΩ	R≤40mΩ	-55°C (30 minutes), +125°C (30 minutes), 100 cycles
Moisture Resistance	±2%: 1J, 2A, 2B ±3%: All others	±0.75%: 1J, 2A, 2B; ±1%: All others	R≤100mΩ	R≤50mΩ	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%: All others	±0.75%: 1J, 2A, 2B; ±1%: All others	R≤100mΩ	R≤50mΩ	70°C ± 2°C, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
High Temperature Exposure	±1%	±0.5%	R≤50mΩ	R≤40mΩ	+155°C, 1000 hours
Sulfuration Test	—	±0.5%	—	R≤40mΩ	H ₂ S 1000 ppm, 25°C, 90%Rh, 720 hours

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

1/19/11