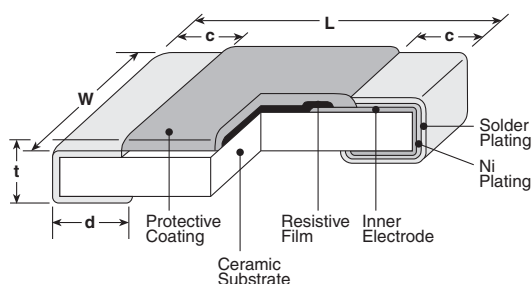


features

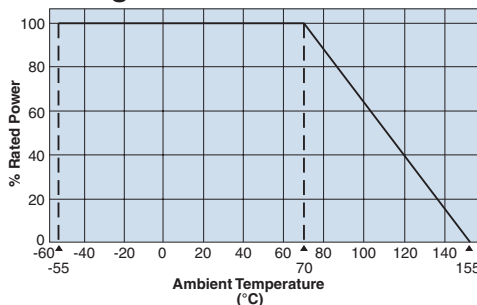
- Excellent anti-sulfuration characteristic due to using high sulfuration-proof inner top electrode material
- Metal-glaze thick film resistor for surface mounting
- High precision resistor with T.C.R. $\pm 50 \times 10^{-6}/K$ and tolerance $\pm 0.25\%$
- Suitable for both flow and reflow solderings
- 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

dimensions and construction

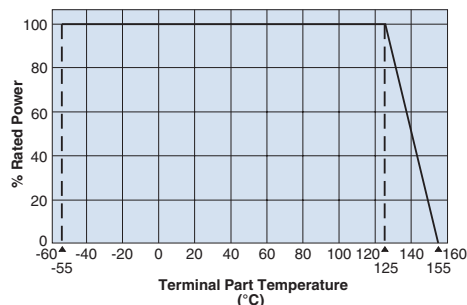


Type (Inch Size Code)	Dimensions inches (mm)				
	L	W	c	d	t
1E (0402)	.039 $\begin{smallmatrix} +.004 \\ -.002 \end{smallmatrix}$ (1.0 $\begin{smallmatrix} +0.1 \\ -0.05 \end{smallmatrix}$)	.02 $\pm$.002 (0.5 $\pm$ 0.05)	.008 $\pm$.004 (0.2 $\pm$ 0.1)	.01 $\begin{smallmatrix} +.002 \\ -.004 \end{smallmatrix}$ (0.25 $\begin{smallmatrix} +0.05 \\ -0.1 \end{smallmatrix}$)	.014 $\pm$.002 (0.35 $\pm$ 0.05)
1J (0603)	.063 $\pm$.008 (1.6 $\pm$ 0.2)	.031 $\pm$.004 (0.8 $\pm$ 0.1)	.012 $\pm$.004 (0.3 $\pm$ 0.1)	.012 $\pm$.004 (0.3 $\pm$ 0.1)	.018 $\pm$.004 (0.45 $\pm$ 0.1)
2A (0805)	.079 $\pm$.008 (2.0 $\pm$ 0.2)	.049 $\pm$.004 (1.25 $\pm$ 0.1)	.016 $\pm$.008 (0.4 $\pm$ 0.2)	.012 $\begin{smallmatrix} +.008 \\ -.004 \end{smallmatrix}$ (0.3 $\begin{smallmatrix} +0.2 \\ -0.1 \end{smallmatrix}$)	.02 $\pm$.004 (0.5 $\pm$ 0.1)
2B (1206)	.126 $\pm$.008 (3.2 $\pm$ 0.2)	.063 $\pm$.008 (1.6 $\pm$ 0.2)	.02 $\pm$.012 (0.5 $\pm$ 0.3)	.016 $\begin{smallmatrix} +.008 \\ -.004 \end{smallmatrix}$ (0.4 $\begin{smallmatrix} +0.2 \\ -0.1 \end{smallmatrix}$)	.024 $\pm$.004 (0.6 $\pm$ 0.1)

Derating Curve



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



For resistors operated terminal part 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.

ordering information

RK73G	2A	RT	TD	1002	D
Type	Size	Termination Material	Packaging	Nominal Resistance	Tolerance
	1E: 0.1W 1J: 0.1W 2A: 0.125W 2B: 0.25W	RT: Sn	TPL: 0402 only: 2mm pitch punched paper TPD: 0402 only: 10" plastic embossed TP: 0402, 0603: 7" 2mm pitch punched paper TD: 0603, 0805, 1206: 7" 4mm pitch punched paper TDD: 0603, 0805, 1206: 10" paper tape TE: 0805, 1206: 7" plastic embossed TED: 0603, 0805, 1206: 10" embossed plastic For further information on packaging, please refer to Appendix A	3 significant figures + 1 multiplier "R" indicates decimal on value <100Ω	C: $\pm 0.25\%$ D: $\pm 0.5\%$ F: $\pm 1\%$

applications and ratings

Part Designation	Power Rating	Rated Ambient Temp.	Rated Terminal Part Temp.	T.C.R. (X 10 ⁻⁶ /K)	Resistance Range			Maximum Working Voltage	Maximum Overload Voltage	Operating Temperature Range
					E-24, E-96 (C±0.25%)	E-24, E-96 (D±0.5%)	E-24, E-96 (F±1%)			
RK73G1E (0402)	1/10W (.10W)	+70°C	+125°C	±50	—	30Ω - 1MΩ	30Ω - 1MΩ	50V	100V	-55°C to +155°C
RK73G1J (0603)	1/10W (.10W)				75V			150V		
RK73G2A (0805)	1/8W (.125W)				150V			200V		
RK73G2B (1206)	1/4W (.25W)				200V			400V		

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

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." Prior to use and for more details refer to "Introduction of the derating curves in the terminal part temperature" in the beginning of the catalog.

environmental applications

Performance Characteristics

Parameter	Requirement $\Delta R \pm(\%+0.1\Omega)$		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%	±0.6%	Rated Voltage x 2.5 for 5 seconds (1E, 2B: Rated Voltage x 2 for 5 seconds)
Resistance to Solder Heat	±1%	±0.4%	260°C ± 5°C, 10 seconds ± 1 second
Rapid Change of Temperature	±0.5%	±0.3%	-55°C (30 minutes), +125°C (30 minutes), 100 cycles
Moisture Resistance	±2%: 1J, 2A, 2B ±3%: 1E	±0.6%: 1J, 2A, 2B; ±1%: 1E	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%: 1E	±0.6%: 1J, 2A, 2B; ±1%: 1E	70°C ± 2°C, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
High Temperature Exposure	±1%	±0.6%	+155°C, 1000 hours
Sulfuration Test	±5%	—	Soaked in industrial oil with sulfur substance 3.5% contained 105°C ± 3°C, 500 hours

For Surface Temperature Rise Graph see Environmental Applications. Additional environmental applications can also be found at 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.

11/03/17

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

KOA Speer:

RK73G1ERTTP2941D	RK73G2ARTTD4123D	RK73G1JRRTD1002D	RK73G1ERTTP1001D	RK73G1ERTTP1002D
RK73G1ERTTP1502D	RK73G1ERTTP1801D	RK73G1ERTTP2001D	RK73G1ERTTP2002D	RK73G1ERTTP2702D
RK73G1ERTTP3001D	RK73G1ERTTP3301D	RK73G1ERTTP4700D	RK73G1ERTTP4702D	RK73G1ERTTP5601D
RK73G1ERTTP6201D	RK73G1ERTTP8201D	RK73G1ERTTP1000D	RK73G1ERTTP1000F	RK73G1ERTTP1001F
RK73G1ERTTP1002F	RK73G1ERTTP1003D	RK73G1ERTTP1003F	RK73G1ERTTP1004D	RK73G1ERTTP1004F
RK73G1ERTTP1020D	RK73G1ERTTP1020F	RK73G1ERTTP1021D	RK73G1ERTTP1021F	RK73G1ERTTP1022D
RK73G1ERTTP1022F	RK73G1ERTTP1023D	RK73G1ERTTP1023F	RK73G1ERTTP1050D	RK73G1ERTTP1050F
RK73G1ERTTP1051D	RK73G1ERTTP1051F	RK73G1ERTTP1052D	RK73G1ERTTP1052F	RK73G1ERTTP1053D
RK73G1ERTTP1053F	RK73G1ERTTP1070D	RK73G1ERTTP1070F	RK73G1ERTTP1071D	RK73G1ERTTP1071F
RK73G1ERTTP1072D	RK73G1ERTTP1072F	RK73G1ERTTP1073D	RK73G1ERTTP1073F	RK73G1ERTTP1100D
RK73G1ERTTP1100F	RK73G1ERTTP1101D	RK73G1ERTTP1101F	RK73G1ERTTP1102D	RK73G1ERTTP1102F
RK73G1ERTTP1103D	RK73G1ERTTP1103F	RK73G1ERTTP1130D	RK73G1ERTTP1130F	RK73G1ERTTP1131D
RK73G1ERTTP1131F	RK73G1ERTTP1132D	RK73G1ERTTP1132F	RK73G1ERTTP1133D	RK73G1ERTTP1133F
RK73G1ERTTP1150D	RK73G1ERTTP1150F	RK73G1ERTTP1151D	RK73G1ERTTP1151F	RK73G1ERTTP1152D
RK73G1ERTTP1152F	RK73G1ERTTP1153D	RK73G1ERTTP1153F	RK73G1ERTTP1180D	RK73G1ERTTP1180F
RK73G1ERTTP1181D	RK73G1ERTTP1181F	RK73G1ERTTP1182D	RK73G1ERTTP1182F	RK73G1ERTTP1183D
RK73G1ERTTP1183F	RK73G1ERTTP1200D	RK73G1ERTTP1200F	RK73G1ERTTP1201D	RK73G1ERTTP1201F
RK73G1ERTTP1202D	RK73G1ERTTP1202F	RK73G1ERTTP1203D	RK73G1ERTTP1203F	RK73G1ERTTP1210D
RK73G1ERTTP1210F	RK73G1ERTTP1211D	RK73G1ERTTP1211F	RK73G1ERTTP1212D	RK73G1ERTTP1212F
RK73G1ERTTP1213D	RK73G1ERTTP1213F	RK73G1ERTTP1240D	RK73G1ERTTP1240F	RK73G1ERTTP1241D