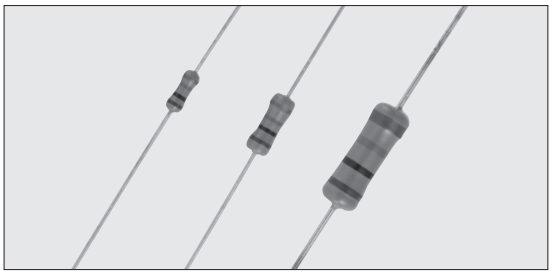
EU RoHS

RK RK1/2G Coat Insulated Glazed Metal Film Fixed Resistors Discharge Path Resistors



Coating color : Light gray
Marking : Color code

■Features

- Respondable to resistance tolerance ±1% and T.C.R. ±100×10^{-6}/K.
- Resistors up to high resistance range in small sizes are available.
- Highly stable against environmental conditions and overload.
- Products meet EU-RoHS requirement. EU-RoHS regulation is not intended for Pb-glass contained in resistor element.

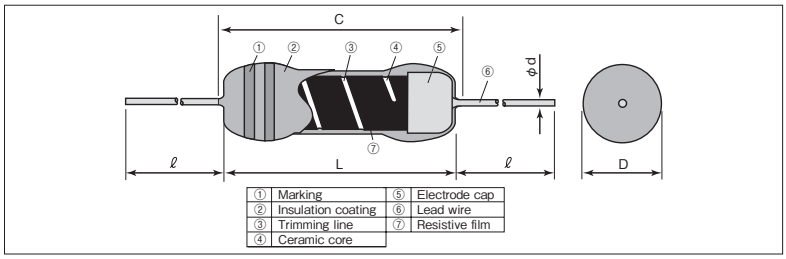
■Approval Awarded

- UL1676 c-UL (CSA-C22.2 No.1-M94) (File No.E159326) Recognized.
  Products Discharge Path Resistors RK 1/2GC

■Reference Standards

- EIAJ RC-2128

■Construction



■Dimensions

Type	Dimensions (mm)					Weight (g) (1000pcs)
	L	C Max.	D	d (Nominal)	ℓ※2	
RK 1/4	6.3±0.5	7.1	2.3±0.3	0.6	24 Min.	250
RK 1/2	9.5±1.0	11.1	3.5±0.4			380
RK 1	15.5±1.0	18.3	5.5±0.5	0.8	38±3	1340
RK 1/2G※1	9.5±1.0	11.1	3.5±0.4	0.6	24 Min.	380

※1 Discharge path resistor
※2 Lead length changes depending on taping and forming type.

■Type Designation

Example

RK	1/4	B	C	T52	A	106	J
Product Code	Power Rating	T.C.R. (×10^{-6}/K)	Terminal Surface Material	Taping & Forming	Packaging	Nominal Resistance	Resistance Tolerance
	1/4 : 0.25W 1/2 : 0.5W 1 : 1W	D : ±100 L : ±200 G : ±250 B : ±350	C : SnCu	See table below	A : AMMO R : REEL Nil : BOX	F : 4 digits G, J : 3 digits	F : ±1% G : ±2% J : ±5%

Contact us when you have control request for environmental hazardous material other than the substance specified by EU-RoHS.
For further information on taping and forming, please refer to APPENDIX C on the back pages.

■Taping & Forming Matrix

Type	Axial Taping			U Forming	L Forming		M Forming				
	T26	T52	T521	U	L10A	L20A	M10		M12.5	M15	
RK1/4□C	○	○	–	○	○	–	M10F	M10R	M12.5R	–	–
RK1/2□C	–	○	–	–	–	–	–	–	M12.5F	M15F	M15R
RK1□C	–	–	○	–	–	○	–	–	–	–	–
RK1/2GC	–	○	–	–	–	–	–	–	M12.5F	M15F	M15R

□ :T.C.R.

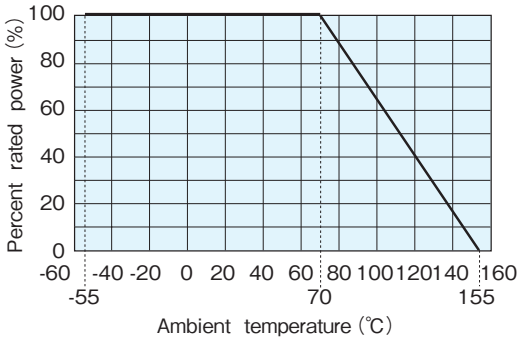
■Ratings

Type	Power Rating	T.C.R. (×10^{-6}/K)	Resistance Range (Ω)			Max. Working Voltage	Max. Overload Voltage	Dielectric Withstanding Voltage	Taping & Q'ty/AMMO (pcs)		
			F:±1% E24・E96	G:±2% E24	J:±5% E24				T26A	T52A	T521A
RK1/4DC	0.25W	D:±100	3.09M~25M	–	–	500V	700V	500V	2,000	2,000	–
RK1/4LC		L:±200	–	3.3M~33M	3.3M~33M						–
RK1/4BC		B:±350	100k~25M	100k~33M	100k~33M						–
RK1/2DC	0.5W	D:±100	5.11M~33M	–	–	700V	1000V	700V	–		–
RK1/2LC		L:±200	–	6.2M~33M	6.2M~33M				–		–
RK1/2BC		B:±350	100k~35M	100k~51M	100k~51M				–		–
RK1BC	1W	B:±350	100k~51M	100k~100M	100k~100M	1000V	1500V	1000V	–	–	500
RK1/2GC※3	0.5W	G:±250	–	–	1M~12M	350V	700V	700V	–	2,000	–

※3 Discharge path resistor
Rated Ambient Temperature : +70℃
Operating Temperature Range : −55℃ ~ +155℃
Rated voltage = $\sqrt{\text{Power Rating} \times \text{Resistance value}}$ or Max. working voltage, whichever is lower.

Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use.
Contact our sales representatives before you use our products for applications including automotives, medical equipment and aerospace equipment.
Malfunction or failure of the products in such applications may cause loss of human life or serious damage.

■Derating Curve



For resistors operated at an ambient temperature of 70℃ or higher, the power shall be derated in accordance with the above derating curve.

■Performance

Test Items	Performance Requirements ΔR± (%+0.05Ω)		Test Methods
	Limit	Typical	
Resistance	Within specified tolerance	—	25℃
T.C.R.	Within specified T.C.R.	—	+25℃/+125℃
Overload (Short time)	1 : RK 2.5 : RK1/2G	0.6 : RK 1 : RK1/2G	Rated voltage×2.5 or Max. overload vol., whichever is lower, for 5s
Resistance to soldering heat	1 : RK 5 : RK1/2G	0.5 : RK 1 : RK1/2G	260℃±5℃, 10s±1s or 350℃±10℃, 3.5s±0.5s
Dielectric withstanding voltage	No breakdown	—	1 min.
Insulation resistance	Not less than 10,000MΩ	—	100V, 1 min.
Rapid change of temperature	1 : RK 5 : RK1/2G	0.5 : RK 1 : RK1/2G	−55℃ (30min.) /+155℃ (30min.) 5 cycles
Moisture resistance	5 : RK 10 : RK1/2G	2 : RK 5 : RK1/2G	40℃±2℃, 90%～95%RH, 1000h 1.5h ON/0.5h OFF cycle
Endurance at 70℃	5 : RK 10 : RK1/2G	2 : RK 5 : RK1/2G	70℃±2℃, 1000h 1.5h ON/0.5h OFF
Resistance to solvent	No abnormality in appearance. Marking shall be easily legible.	—	The resistor shall be immersed for 5s in IPA.
Impulse	No such abnormalities as short-circuit, burnout, breakdown, etc.	—	Discharge from 1000pF capacitor 50 pulses. Interval 2.5s Charge voltage : 1.25kV (RK1/4), 2.5kV (RK1/2) and 6kV (RK1).

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