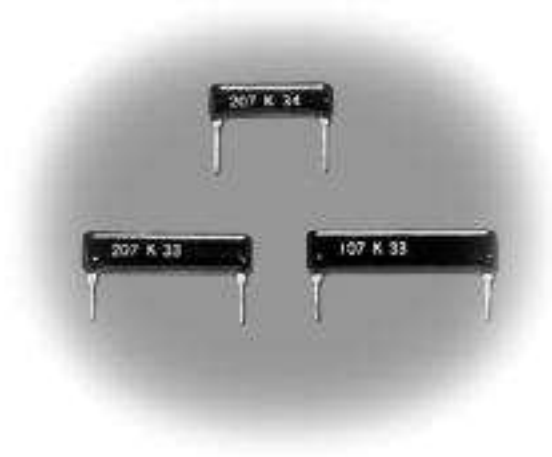
KOA SPEER ELECTRONICS, INC.

RK92

thick film resistors for high voltage

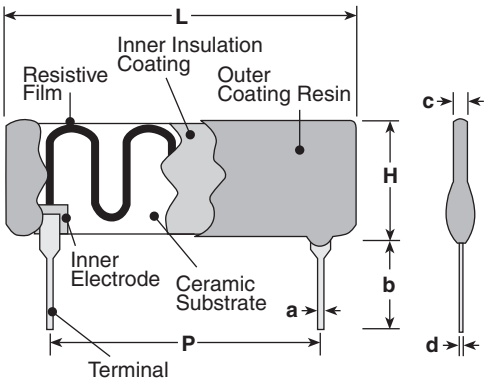
EU RoHS COMPLIANT



features

- High resistance resistors for high voltage circuits
- Thin SIP shape
- The flame retardant coats corresponding to UL94V-0 are used
- Thick film resistors (RuO_2) ensure high stabilities in life and change in aging
- Marking: Black body color
- 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.

dimensions and construction



Type	Dimensions inches (mm)						
	L (Max.)	H (Max.)	a	b	c (Max.)	d	P
4L	.500 (12.7)	.200 (5.08)	.020±.004 (0.5±0.1)	.118±.020/.012 (3.0+0.5/-0.3)	.098 (2.5)	.010±.004 (0.25±0.1)	.402±.008 (10.2±0.2)
5L	.602 (15.3)						.5±.008 (12.7±0.2)
6L	.701 (17.8)						.598±.008 (15.2±0.2)
3C	.425 (10.8)	.256 (6.5)					.3±.008 (7.62±0.2)
5C	.622 (15.8)						.5±.008 (12.7±0.2)
7C	.823 (20.9)						.701±.008 (17.8±0.2)
8C	.925 (23.5)						.799±.008 (20.3±0.2)
9C	1.02 (26.0)						.902±.008 (22.9±0.2)

ordering information

New Part #

RK92	5L	D	107	J
Type	Style	Termination Surface Material	Nominal Resistance	Resistance Tolerance
	4L 5L 6L 3C 5C 7C 8C 9C	D: SnAgCu (Other termination material styles may be available, please contact factory for options)	±2% ~ ±10%: 2 significant figures + 1 multiplier ±1%: 3 significant figures + 1 multiplier	F: ±1% G: ±2% J: ±5% K: ±10% M: ±20%

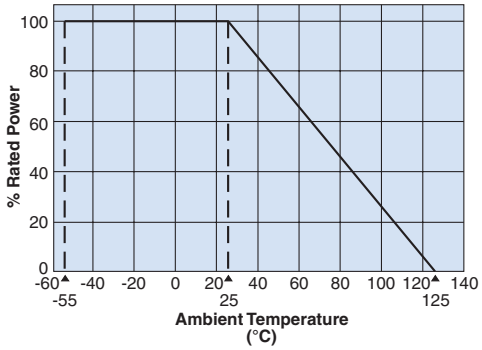
12/29/10

applications and ratings

Part Designation	Power Rating	T.C.R. (ppm/°C) Max.	Resistance Range (Ω)					Maximum Working Voltage	Rated Ambient Temperature	Operating Temperature Range
			F: ±1%	G: ±2%	J: ±5%	K: ±10%	M: ±20%			
4L	0.5W	±300	2M - 10M	2M - 10M	—	—	—	1kV	+70°C	-25°C to +125°C
5L	0.5W		1M - 500M	1M - 500M	1M - 1G	1M - 1G	1M - 1G	10kV		
6L	0.6W		1M - 500M	1M - 500M	1M - 1G	1M - 1G	1M - 1G	10kV		
3C	0.5W		1M - 500M	1M - 500M	1M - 1G	1M - 1G	1M - 1G	7kV		
5C	0.75W		1M - 500M	1M - 500M	1M - 1G	1M - 1G	1M - 1G	10kV		
7C	0.85W		—	—	1M - 1G	1M - 1G	1M - 1G			
8C	1.0W		—	—	1M - 1G	1M - 1G	1M - 1G			
9C	1.1W		1M - 500M	1M - 500M	1M - 1G	1M - 1G	1M - 1G			

environmental applications

Derating Curve



Performance Characteristics

Parameter	Requirement Δ R ±(% + 0.05Ω) Limit	Typical	Test Method
Resistance	Within specified tolerance	—	25°C
T.C.R.	Within specified tolerance	—	Room temperature +100°C
Resistance to Solder Heat	1%	0.5%	260°C ± 5°C, 10 seconds ± 1 second
Temperature Cycling	1%	0.5%	-25°C (30 minutes)/ +125°C (30 minutes) 5 cycles
Moisture Resistance	5%	3%	40°C ± 2°C, 90 - 95% RH, 1000 hours,
Endurance @ 70°C	5%	3%	Room temperature 1000 hours, Rated voltage

12/29/10