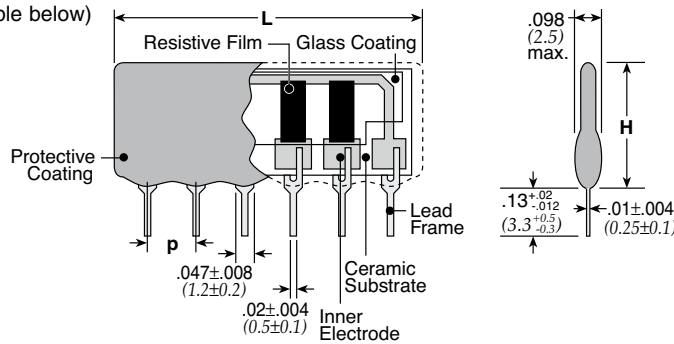


## features

- Available in various types of standard circuits in different sizes and power
- Higher temperature soldering of the leads prevents terminals from loosening during board assembly
- For automatic insertion machines, stick magazines and taping packages are available
- Marking: Black body color with white marking
- 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

(See table below)



Size Code		Number of Pins														Dimen. in. (mm)	
		3	4	5	6	7	8	9	10	11	12	13	14	15	16	H max.	p
RKL	L	8.20	10.16	12.70	15.24	17.78	20.32	22.86	25.40	27.94	30.48	—	—	—	—	.200 (5.08)	.100±.008 (2.54±0.2)
	B,A,R circuit	250	375	500	625	750	875	1000	1050	1150	1250	—	—	—	—		
	C,T,E circuit	—	—	500	—	750	—	1000	—	1150	—	—	—	—	—		
	D circuit	—	—	375	500	625	750	875	1000	1125	1250	—	—	—	—		
	S Circuit	—	400	—	600	—	800	—	1000	—	1200	—	—	—	—		
RKC (2.54 pitch)	L	8.20	10.8	13.2	15.8	18.3	20.9	23.4	25.9	28.5	31.0	33.6	36.1	38.7	41.3	.256 (6.5)	.100±.008 (2.54±0.2)
	B,A,R circuit	250	375	500	625	750	875	1000	1050	1150	1250	1350	1450	1550	—		
	C,T,E circuit	—	—	500	—	750	—	1000	—	1150	—	1350	—	—	—		
	D circuit	—	—	375	500	625	750	875	1000	1125	1250	1350	1450	—	—		
	S Circuit	—	500	—	750	—	1000	—	1050	—	1250	—	1450	—	—		
RKH	L	—	10.8	13.3	15.8	18.3	20.9	23.4	25.9	28.5	31.0	33.6	—	—	—	.421 (10.7)	.100±.008 (2.54±0.2)
	B,A,R circuit	—	525	700	875	1050	1250	1400	1500	1600	1700	1800	—	—	—		
	C,T,E circuit	—	—	700	—	1050	—	1400	—	1600	—	1800	—	—	—		
	D circuit	—	—	700	875	1050	1250	1400	1500	1600	1700	—	—	—	—		
	S Circuit	—	500	—	1050	—	1400	—	1500	—	1700	—	—	—	—		
RKC (1.8 pitch)	L	—	10.2	10.8	12.7	15.5	15.8	17.8	20.4	20.9	23.5	25.4	28.5	—	—	.256 (6.5)	.071±.006 (1.8±0.15)
	W	—	300	400	500	580	650	720	760	820	850	880	900	—	—		

L= L dimension (mm) max. W= Wattage/Package (mW) max.

## ordering information

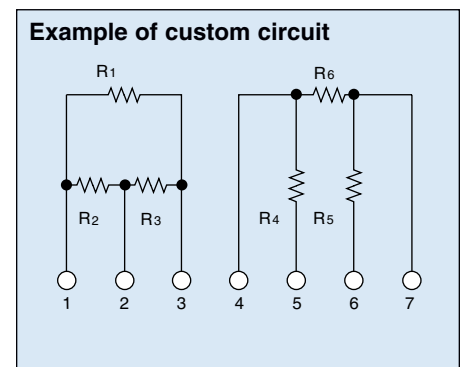
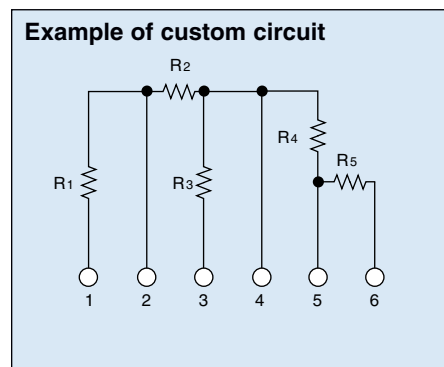
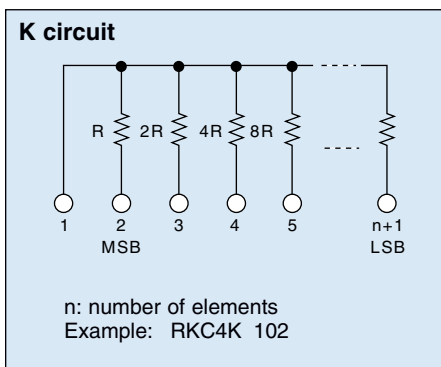
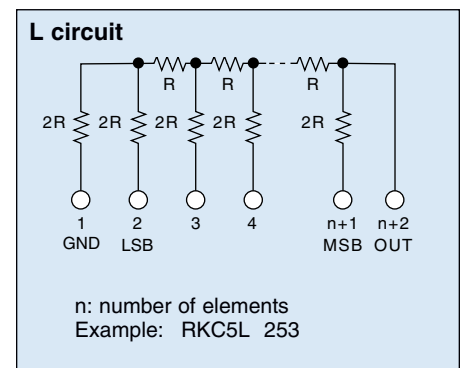
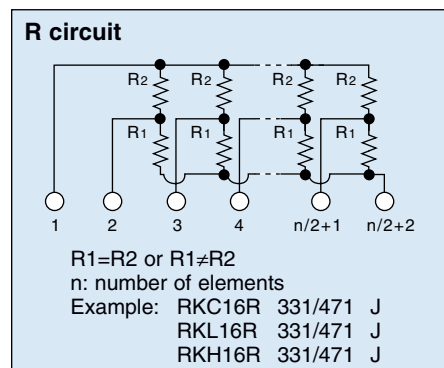
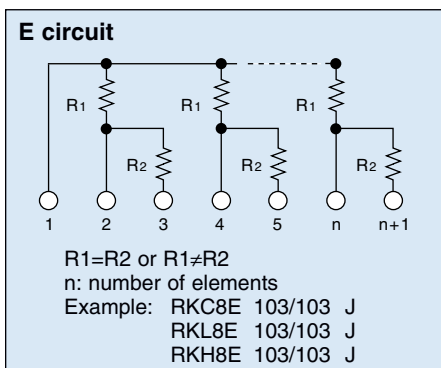
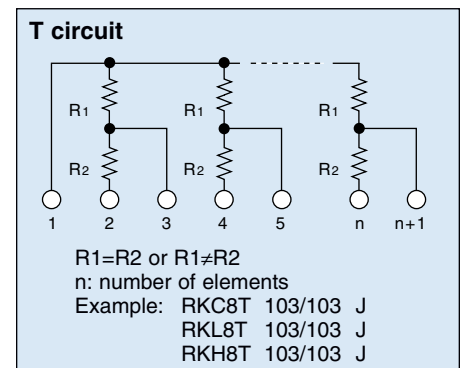
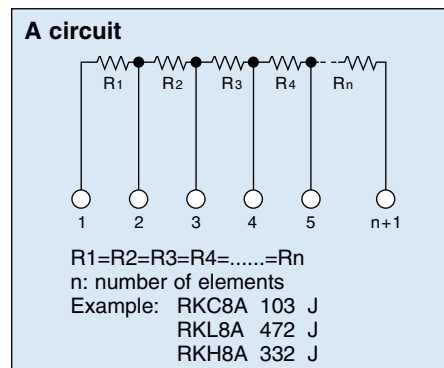
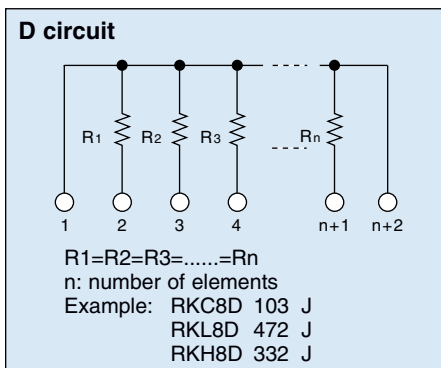
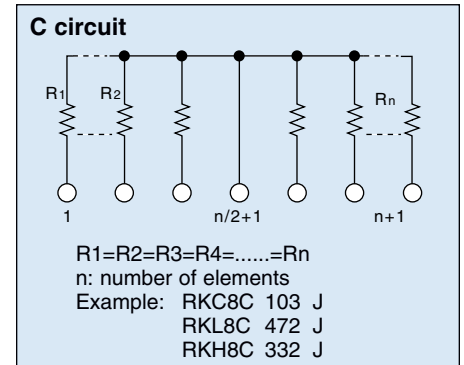
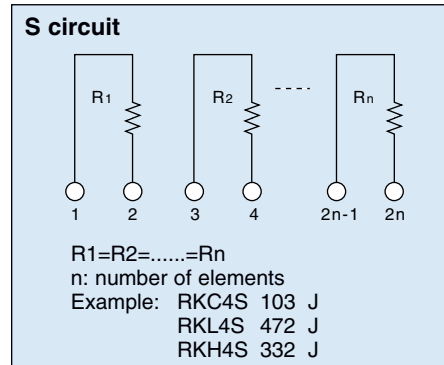
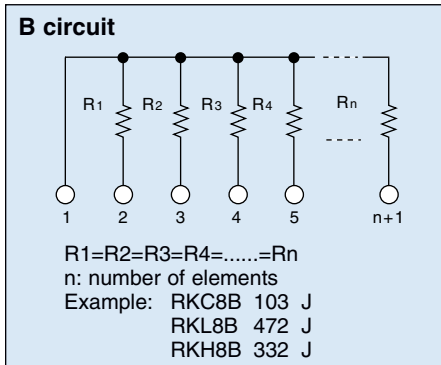
New Part #	RKC	8	B	S	D	STP	103	F
Type	RKC RKH RKL	Number of Resistors	Circuit Symbol	1.8mm Symbol	Termination Material	Packaging	Nominal Resistance	Tolerance
		3 - 16	B, S, C, D, A, T, E, R RKC: L, K	RKC only	D: SnAgCu (Other termination styles available, contact factory for options)	STP, STB TPA: (4-9 pins) or TUA (10 pins) taping (3 leads) TBA: taping (all leads)	2 significant figures + 1 multiplier for ±2% & ±5% 3 significant figures + 1 multiplier for ±1% R1/R2 3 digits/3 digits	F: ±1% G: ±2% J: ±5% R circuit: ±2%, ±5% only

For further information on packaging, please refer to Appendix C.

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

11/29/16

### circuit schematics



### applications and ratings

Part Designation	Circuit Symbol	Number of Pins	Power Rating/Element	T.C.R. (ppm/°C) Max.	Resistance Range (Ω)	Resistance Tolerance	Maximum Working Voltage	Rated Ambient Temperature	Operating Temperature Range	
RKC	B	3-16	125mW	±200	22-2.2M (E24)	F: ±1% G: ±2% J: ±5%	200V	+70°C	-55°C to +155°C	
	C	5-13								
	D	5-14								
	A	4-14								
	T	5-13								
	E	5-13	250mW							
	S	4-16	125mW		100-100k (E24)	G: ±2% J: ±5%				
	L	6-11	20mW		±200	R=2.5k, 5k 10k, 25k 50k, 100k	±1/2LSB (Bit Error)	20V		+70°C
	K	5-9	40mW			R1(MSB):100 Min Rn(LSB):1M Max	±1/2LSB (Bit Error)			
RKL	B	3-12	125mW	±200	22-1M (E24)	F: ±1% G: ±2% J: ±5%	100V	+70°C	-55°C to +125°C	
	C	5-11								
	D	5-12								
	A	3-12								
	T	5-11								
	E	5-11	200mW							
	S	4-12	125mW		100-100k (E24)	G: ±2% J: ±5%				
RKH	B	4-13	250mW	±200	56-2.2M (E24)	F: ±1% G: ±2% J: ±5%	250V	+70°C	-55°C to +155°C	
	C	5-13								
	D	5-12								
	A	4-12								
	T	5-13								
	E	5-13	500mW							
	S	4-12	250mW		100-100k (E24)	G: ±2% J: ±5%				
Custom	RKL	3-12	0.1W	±100 ±150 ±200	10-1M	±0.5% ±1% ±2% ±5%	100V	+70°C	-55°C to +125°C	
	RKC (1.8 pitch)	4-14	0.125W				50V			
	RKC (2.54 pitch)	3-16	0.25W				200V			
			0.5W				250V			
	RKH	4-13	1W							

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

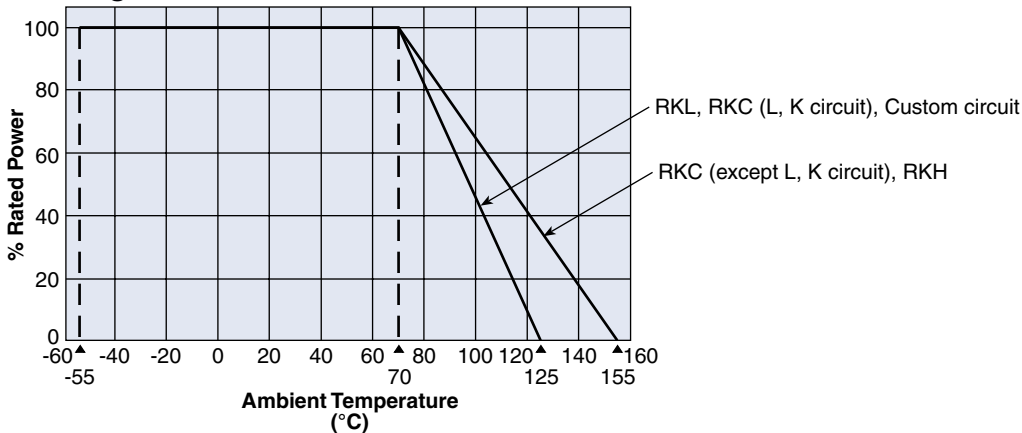
### weight (g/1000 pcs)

	Number of Pins						
	3	4	5	6	7	8	9
<b>RKL</b>	147	185	228	271	314	357	400
<b>RKC</b>	160	217	273	330	387	444	501
<b>RKH</b>	—	416	511	606	701	796	891

	Number of Pins						
	10	11	12	13	14	15	16
<b>RKL</b>	443	486	529	—	—	—	—
<b>RKC</b>	558	615	672	728	785	842	893
<b>RKH</b>	986	1081	1176	1271	—	—	—

### environmental applications

#### 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.

#### Performance Characteristics

Parameter	Requirement $\Delta R \pm(\%+0.05\Omega)$		Test Method
	Limit	Typical	
Resistance	Within specified tolerance	—	25°C
T.C.R.	Within specified T.C.R.	—	+25°C/-55°C, +25°C/+125°C (RKL) +25°C/-55°C, +25°C/+155°C (RKC, RKH)
Overload (Short time)	$\pm 0.5\%$	$\pm 0.25\%$	Rated voltage x 2.5 for 5 seconds
Resistance to Solder Heat	$\pm 0.5\%$	$\pm 0.25\%$	260°C $\pm$ 5°C, 10 seconds $\pm$ 1 second
Temperature Cycling	$\pm 0.5\%$	$\pm 0.25\%$	-40°C (30 minutes), +85°C (30 minutes), 5 cycles
Moisture Resistance	$\pm 2.0\%$	$\pm 1.0\%$	40°C $\pm$ 2°C, 90 - 95% RH, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
Endurance at 70°C	$\pm 2.0\%$	$\pm 1.0\%$	70°C $\pm$ 2°C, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle