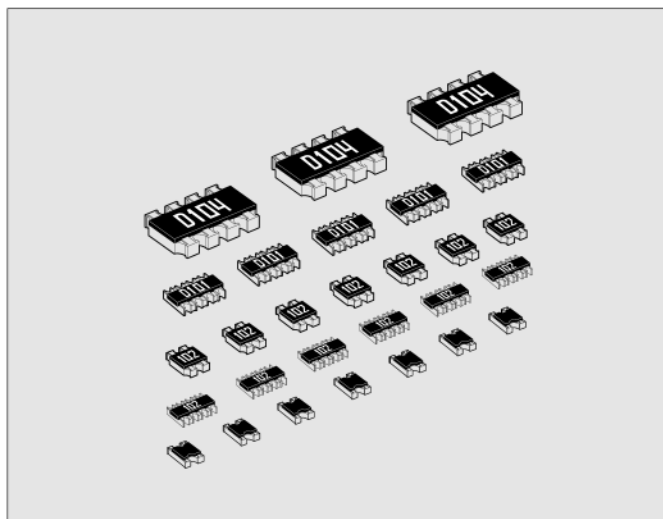


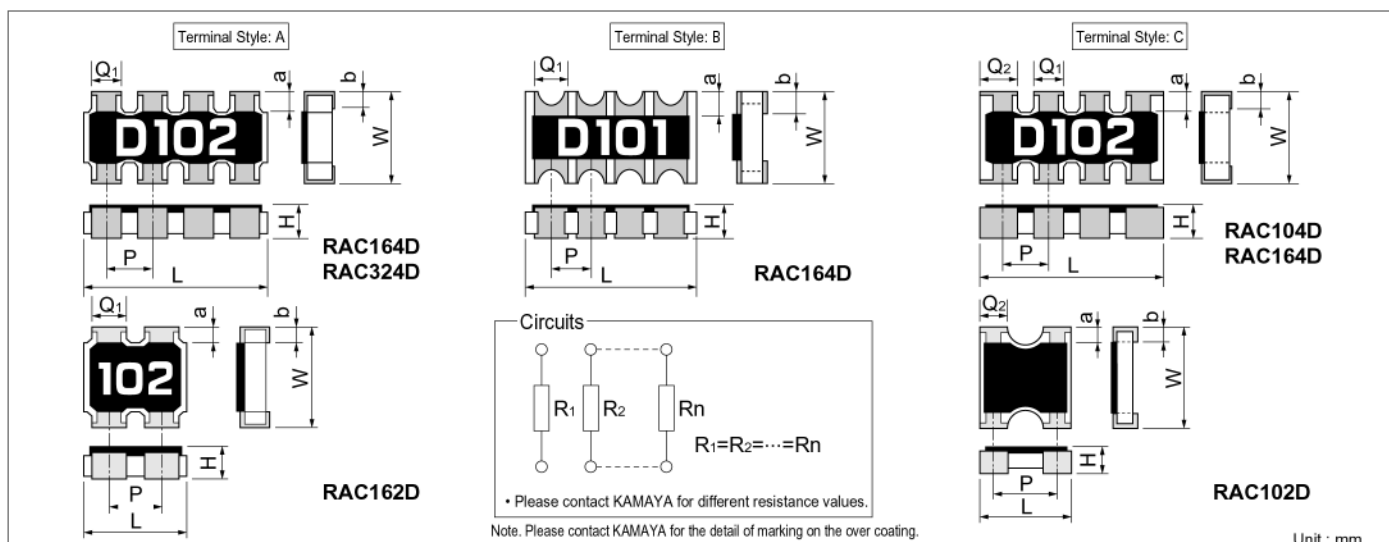
# RAC

## ●Features

1. High-density SMD packaging gives higher productivity and reduces assembly costs.
2. Stability Class : 5%



## ●Dimensions and Circuits



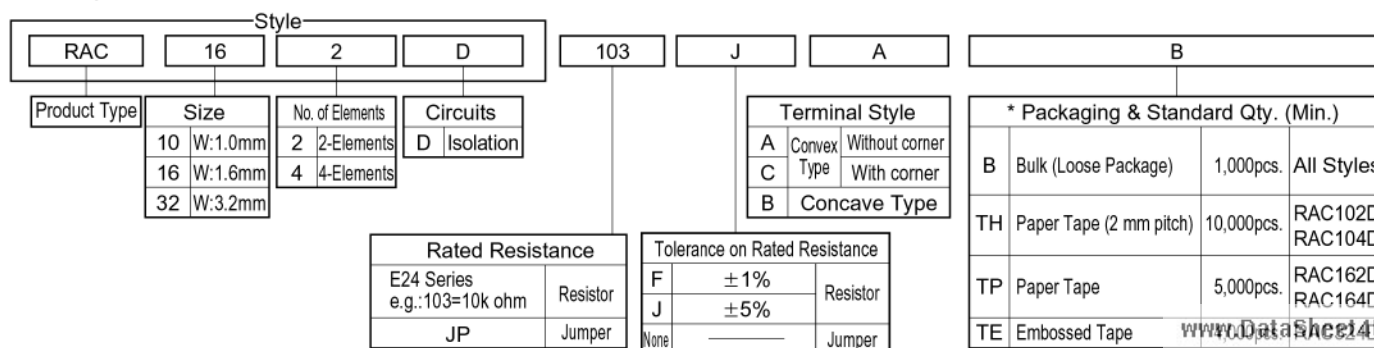
Unit : mm

Style	Terminal Style	L	W	H	Q <sub>1</sub>	*Q <sub>2</sub>	a	b	*P	*Unit weight/pc.
RAC102D	C	1.0 ±0.05	1.0±0.05	0.35±0.05	-	0.33	0.15±0.10	0.25 <sup>+0.05</sup> <sub>-0.10</sub>	0.65	1.1mg
RAC104D	C	2.0 ±0.1	1.0±0.1	0.35±0.05	0.35 ±0.1	0.45	0.15±0.10	0.25±0.10	0.5	2.1mg
RAC162D	A	1.6 ±0.1	1.6±0.1	0.5 ±0.1	0.5 ±0.1	-	0.25±0.10	0.25 <sup>+0.15</sup> <sub>-0.10</sub>	0.8	3.5mg
RAC164D	A	3.2 ±0.1	1.6±0.1	0.5 ±0.1	0.5 ±0.1	-	0.25±0.10	0.2 ±0.1	0.8	7mg
	B	3.2 ±0.1	1.6±0.1	0.6 ±0.1	0.45±0.05	-	0.35±0.15	0.45±0.10	0.8	10mg
	C	3.2 ±0.1	1.6±0.1	0.5 ±0.1	0.4 ±0.15	0.6	0.3 ±0.2	0.25±0.15	0.8	7mg
RAC324D	A	5.08±0.20	3.1±0.2	0.55±0.10	0.8 ±0.2	-	0.5 ±0.2	0.3 ±0.2	1.27	27mg

\*Values for reference

## ●Part Number Description

Example



\*Refer to Tape and Packaging information on pages 38 and 39.

## FIXED CHIP RESISTOR NETWORKS; RECTANGULAR TYPE

RAC

## ●Ratings

Style	Rated Dissipation at 70°C		Tolerance on Rated Resistance	Rated Current of Jumper A	Limiting Element Voltage V	Temperature Coefficient of Resistance 10 <sup>-6</sup> /°C	Rated Resistance Range	Preferred Number Series for Resistors	Isolation Voltage V	Category Temperature Range °C
	W/Element	W/pc.								
RAC102D	0.063	0.125	J(±5%)	1.0	25	±200	10Ω~1MΩ	E24	50	-55~+125
RAC104D		0.25								
RAC162D		0.125								
RAC164D		0.25	F(±1%)J(±5%)	50						
RAC324D	0.125	0.5	J(±5%)	2.0	200				400	

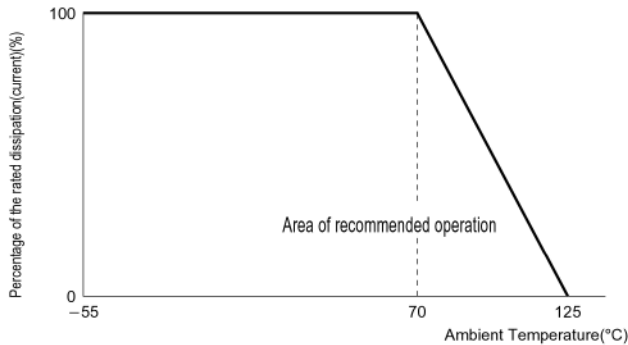
Note1. Rated Voltage =  $\sqrt{(\text{Rated Dissipation}) \times (\text{Rated Resistance})}$ . (d.c. or a.c. r.m.s. Voltage)

Note2. Limiting Element Voltage can only be applied to resistors when the resistance value is equal to or higher than the critical resistance value.

## ●Derating Curve

The derated values of dissipation for temperatures in excess of 70°C shall be indicated by the following Curve.

(For Jumpers the load current shall be derated according to the Derating Curve)



## ●Climatic Category

55/125/56

Lower Category Temperature

-55°C

Upper Category Temperature

+125°C

Duration of the Damp heat, Steady-State Test

56 days

## ●Performance Characteristics JIS C 5201-1 : 1998

Description	Requirements	Test Methods
Voltage proof	No breakdown or flashover $R \geq 1G$ ohm	Clause 4.7 RAC102D, 104D 50Va.c.,60s RAC162D, 104D 100Va.c.,60s RAC324D 400Va.c.,60s
Variation of resistance with temperature	See Ratings Table	Clause 4.8 Measuring temperature : +20°C/-55°C/ +20°C/+125°C/+20°C
Overload	$\Delta R \leq \pm(1\%+0.05 \text{ ohm})$ No visible damage, legible marking	Clause 4.13 The applied voltage shall be 2.5 times of the rated voltage or twice of the limiting element voltage, whichever is the less severe, 2s.
Solderability	In accordance with Clause 4.17.4.5	Clause 4.17 235°C, 2s
Resistance to soldering heat	$\Delta R \leq \pm(1\%+0.05 \text{ ohm})$	Clause 4.18 After immersion into the flux, the Immersion into solder shall be carried out in Solder bath at 260°C for 5s.
Rapid change of temperature	$\Delta R \leq \pm(1\%+0.05 \text{ ohm})$ No visible damage	Clause 4.19 5 cycles between -55°C and +125°C.
Climatic sequence	$\Delta R \leq \pm(5\%+0.1 \text{ ohm})$ No visible damage	Clause 4.23 Dry/Damp heat(12+12h cycle), first cycle./ Cold/Damp heat(12+12h cycle), remaining cycle./ D.C.Load.
Damp test, steady state	$\Delta R \leq \pm(5\%+0.1 \text{ ohm})$ No visible damage, legible marking	Clause 4.24 40°C, 95%R.H., 56 days, test a) and b) of Clause 4.24.2.1
Endurance at 70°C	$\Delta R \leq \pm(5\%+0.1 \text{ ohm})$ No visible damage	Clause 4.25.1 Rated voltage, 1.5h "ON", 0.5h "OFF", 70°C, 1,000h.
Endurance at the upper category temperature	$\Delta R \leq \pm(5\%+0.1 \text{ ohm})$ No visible damage	Clause 4.25.3 125°C, no-load, 1,000h.
Adhesion	No visible damage	Clause 4.32 5N, 10s
Bend strength of the face plating	$\Delta R \leq \pm(1\%+0.05 \text{ ohm})$	Clause 4.33 Amount of bend : 3 mm