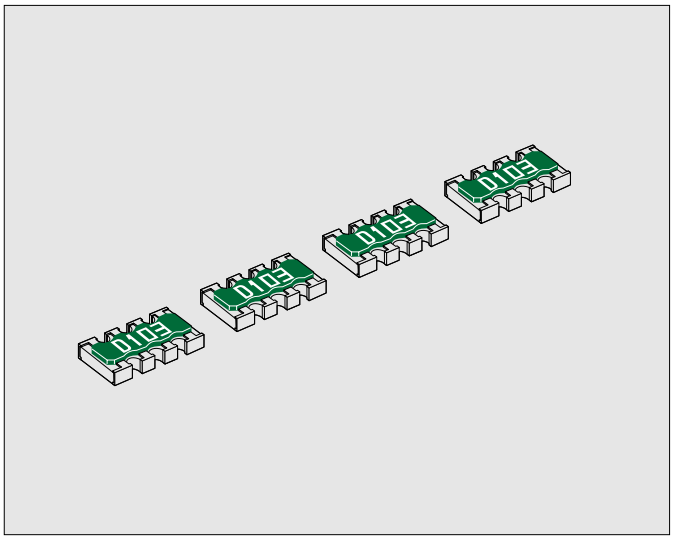
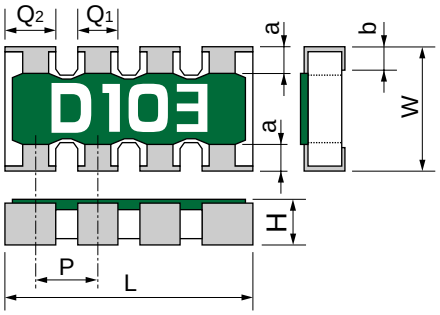
RAG16

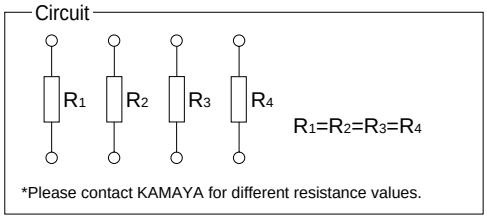
●Features

1. This product is a precision composite chip resistor for use in high density, high precision applications.
2. It offers very stable performances by having T.C.R. of 50×10^{-6}/°C and adopting Tol.±0.5% and ±1% in a series of products.
3. Suitable for automated assembly.
4. Stability class : 5%



●Dimensions and Circuit





Unit : mm

Style	Terminal	L	W	H	Q_1	*Q_2	a	b	*P	*Unit weight/pc.
RAG16 4D	**C**	3.2±0.1	1.6±0.1	0.5±0.1	0.4±0.15	0.60	0.3±0.2	0.3±0.1	0.8	7mg

*Value for reference

●Product Classification

Example

RAG	16	4	D	C	103	**D**	C	TP
①Product Type	②Size	③No. of Elements	④Circuits	⑤Temperature Coefficient of Resistance	⑥Rated Resistance	⑦Tolerance on Rated Resistance	⑧ Terminal Style	⑨Packaging
Style								

①Product Type

③No. of Elements

Code	No. of Elements
4	4elements

⑤Temperature Coefficient of Resistance

Code	Temperature Coefficient of Resistance
C	±50×10^{-6}/°C

⑦Tolerance on Rated Resistance

Code	Tolerance on Rated Resistance
D	±0.5%
F	±1.0%

*⑨Packaging

Code	Packaging
B	Bulk(Loose Package)
TP	Paper Tape.

*Refer to Taping and Packaging information in page 34.35

②Size

Code	Width
16	1.6mm

④Circuits

Code	Circuits
D	Isolation

⑥Rated Resistance

E24 Series e.g : 473=47k ohm	3Digit
E96 Series e.g : 7152=71.5k ohm	4Digit

⑧Terminal Style

Code	Terminal Style	
C	⊔Type	With corner

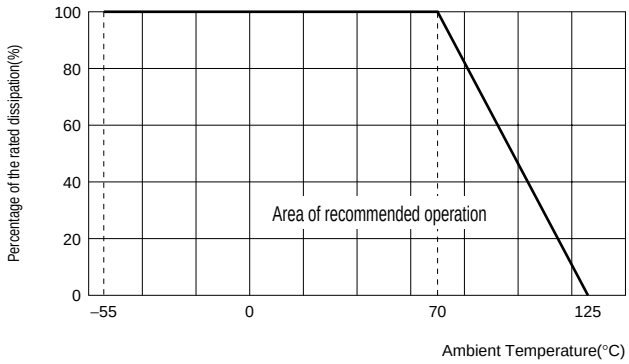
●Ratings

Style	Rated Dissipation at 70°C W	Limiting Element Voltage V	Temperature Coefficient of Resistance 10^{-6}/°C	Rated Resistance Range	Tolerance on Rated Resistance	Preferred Number Series for Resistors	Isolation Voltage V	Category Temperature Range °C
RAG16	0.063/Element	50	C(±50)	100 ohm~1M ohm	D(±0.5%) F(±1.0%)	E24 Series E96 Series	100	–55~+125

Note.1 Rated Voltage = $\sqrt{(\text{Rated Power})\times(\text{Rated Resistance})}$.(d.c. or a.c. r.m.s. Voltage)
Note.2 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 at temperature in excess of 70°C shall be as indicated by the following Curve.



●Climatic Category

55/125/56

Lower Category Temperature	–55°C
Upper Category Temperature	+125°C
Duration of the Damp heat, Steady-State Test	56days

●Performance Characteristics JIS C 5201-1 : 1998

Description	Requirements	Test Methods
Voltage proof	No breakdown or flashover R≥1G ohm	Clause 4.7 100Va.c.,60s
Variation of resistance with temperature	See Ratings Table	Clause 4.8 Measuring temperature : +20°C/+125°C/+20°C
Overload	ΔR≤±(1%+0.05 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	ΔR ±(1%+0.05 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	ΔR≤±(1%+0.05 ohm) No visible damage	Clause 4.19 5 cycles between –55°C and +125°C
Climatic sequence	ΔR≤±(5%+0.1 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	ΔR≤±(5%+0.1 ohm) No visible damage, legible marking	Clause 4.24 40°C 95%R.H. 56 days, test a) of Clause 4.24.2.1
Endurance at 70°C	ΔR≤±(5%+0.1 ohm) No visible damage	Clause 4.25.1 Rated voltage, 1.5h "ON", 0.5h "OFF", 70°C, 1000h.
Endurance at the upper category temperature	ΔR≤±(5%+0.1 ohm) No visible damage	Clause 4.25.3 125°C, no-load, 1000h.
Adhesion	No visible damage	Clause 4.32 5N, 10s
Bend strength of the face plating	ΔR≤±(1%+0.05 ohm)	Clause 4.33 Amount of bend : 3mm