

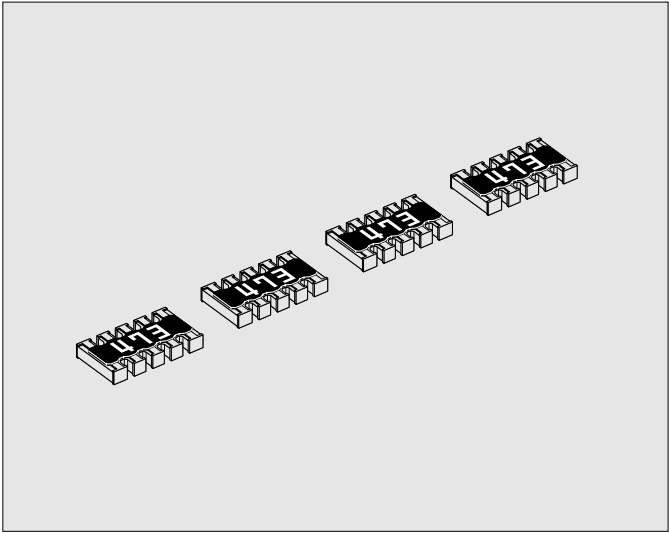
FIXED CHIP RESISTOR NETWORKS; RECTANGULAR TYPE

KAMAYA OHM

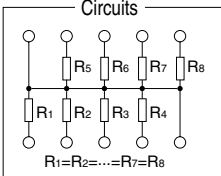
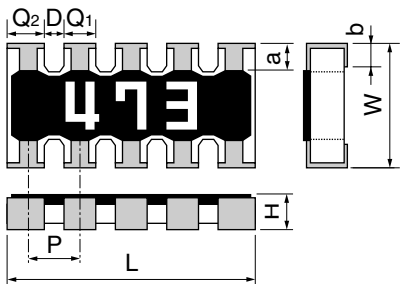
RAC168U

●Features

- 1. Highly suitable for the purposes of pull-up and pull-down.
- 2. Easy to handle because of no specified direction for mounting due to the symmetrical position of common terminals.
- 3. Stability Class : 5%



●Dimensions and Circuits

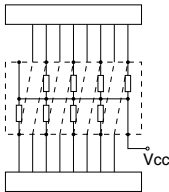


Rated resistance is marked with 3-digit on the over coating.

Style	Terminal Style	L	W	H	D	Q ₁	*Q ₂	a	b	*P	*Unit weight/pc.
RAC168U	C	3.2±0.2	1.6±0.1	0.5±0.1	0.32±0.10	0.32±0.10	0.53	0.3 ±0.2	0.3±0.15	0.64	7.6mg

*Values for reference

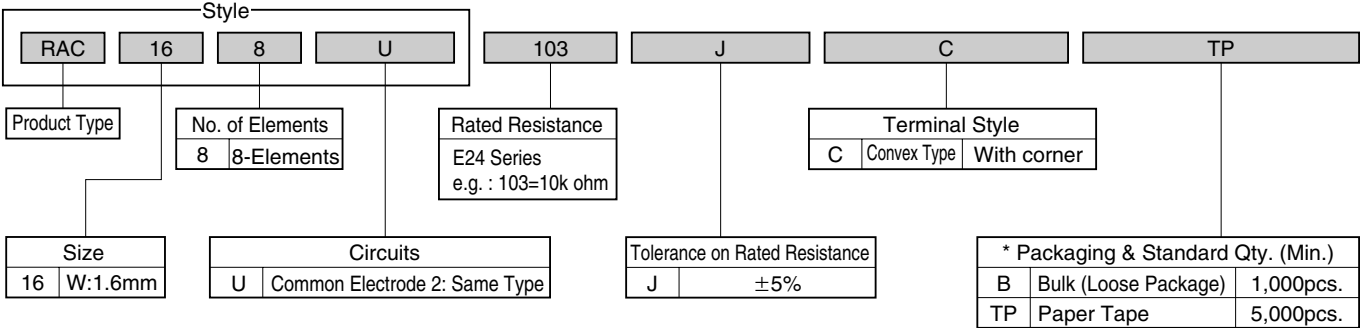
●Application Examples



- Making the parallel 8-Elements resistor for pull-up / pull-down into one chip.
- Ideal for high density SMT applications as direct mounting on the bus line is possible.

●Part Number Description

Example



*Refer to Tape and Packaging information on pages 48 and 49.

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●Ratings

Style	Rated Dissipation at 70°C W	Rated Resistance Range	Tolerance on Rated Resistance	Temperature Coefficient of Resistance 10 ⁻⁶ /°C	Limiting Element Voltage V	Preferred Number Series for Resistors	Isolation Voltage V	Category Temperature Range °C
RAC168U	0.063	10Ω~18Ω	J(±5%)	±250	25	E24	100	-55~+125
		20Ω~1MΩ		±200				

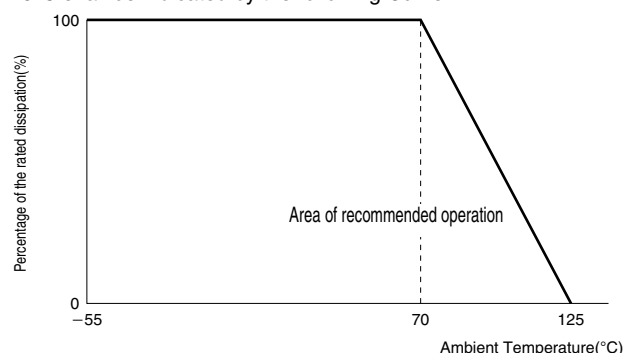
Note1. Rated Voltage = $\sqrt{(\text{Rated Dissipation}) \times (\text{Rated Resistance})}$. (d.c. or a.c. r.m.s. Voltage)

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

Note3. Critical Resistance Value is the resistance value at which the rated voltage is equal to the limiting element voltage.

●Derating Curve

The derated values of dissipation for temperatures in excess of 70°C shall be 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

56 days

●Performance Characteristics JIS C 5201-1 : 1998

Description	Requirements	Test Methods
Voltage proof	No breakdown or flashover $R \geq 1G \text{ ohm}$	Clause 4.7 100Va.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) 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