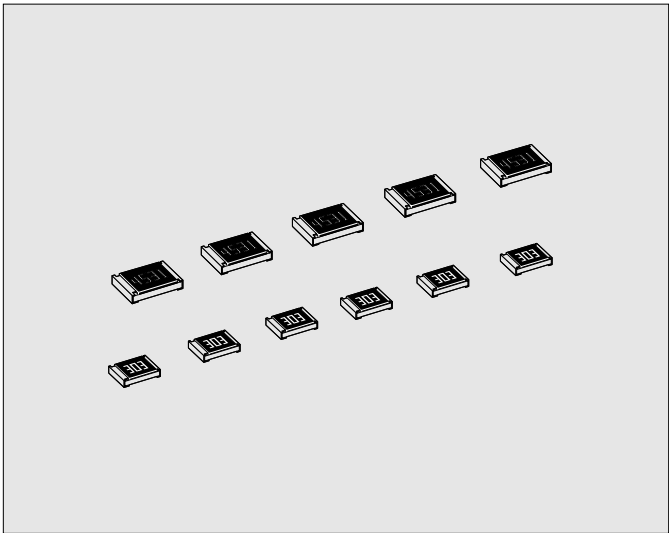


FIXED THIN FILM CHIP RESISTORS; RECTANGULAR TYPE
RNC

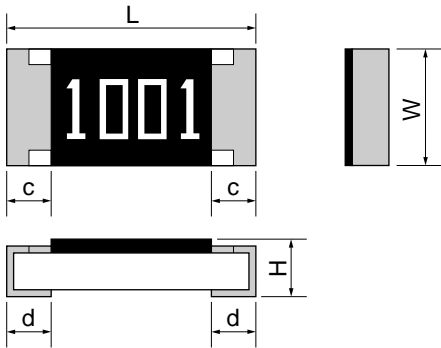
KAMAYA OHM

●Features

1. Suitable for high precision, higher stability and reliability applications compared to thick-film chip resistors.
2. Contribute to the reduction of fine adjustment, high accuracy and stability of circuit.
3. Stability Class : 1%



●Dimensions



Rated resistance value is made with 3-digit (E24) or 4-digit (E96) on the over coating.

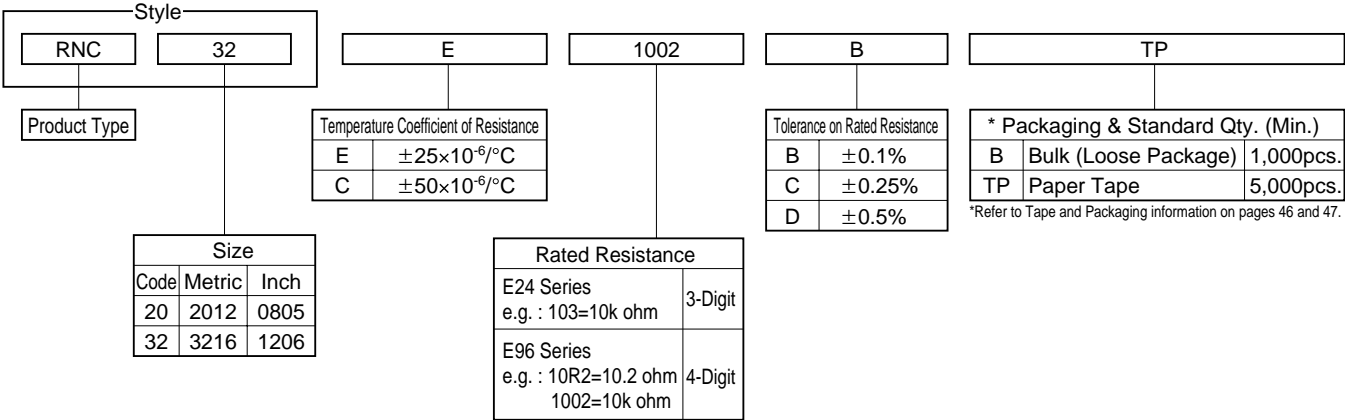
Unit : mm

Style	Metric	Inch	L	W	H	c	d	*Unit weight/pc.
RNC20	2012	0805	2.0±0.15	1.25 ^{+0.10} _{-0.05}	0.6±0.1	0.4 ±0.2	0.3 ^{+0.2} _{-0.1}	5mg
RNC32	3216	1206	3.1±0.1	1.55 ^{+0.10} _{-0.05}	0.6±0.1	0.45±0.20	0.3 ^{+0.2} _{-0.1}	9mg

*Values for reference

●Part Number Description

Example



FIXED THIN FILM CHIP RESISTORS; RECTANGULAR TYPE

RNC

•Ratings

Style	Size Metric (Inch)	Rated Dissipation at 70°C W	Rated Resistance Range	Tolerance on Rated Resistance	Temperature Coefficient of Resistance 10 ⁰ /°C	Limiting Element Voltage V	Preferred Number Series for Resistors	Isolation Voltage V	Category Temperature Range °C
RNC20	2012 (0805)	0.1	100Ω~130kΩ	B (±0.1%)	±25	75	E96 E24	100	-55~+125
			10Ω~130kΩ	C (±0.25%) D (±0.5%)					
RNC32	3216 (1206)	0.125	100Ω~180kΩ	B (±0.1%)	±50	150	E96 E24	100	-55~+125
			10Ω~180kΩ	C (±0.25%) D (±0.5%)					

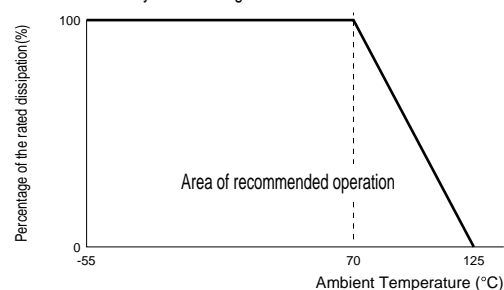
Note1. Rated Voltage = $\sqrt{(\text{Rated Dissipation}) \times (\text{Rated Resistance})}$. (d.c. or a.c. r.m.s. Voltage)

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 $R \geq 1 \text{ G ohm}$	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	$\Delta R \leq \pm(0.25\% + 0.05 \text{ ohm})$ 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	$\Delta R \leq \pm(0.25\% + 0.05 \text{ ohm})$	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	$\Delta R \leq \pm(0.25\% + 0.05 \text{ ohm})$ No visible damage	Clause 4.19 5 cycles between -55°C and +125°C.
Climatic sequence	$\Delta R \leq \pm(1\% + 0.05 \text{ ohm})$ 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	$\Delta R \leq \pm(1\% + 0.05 \text{ ohm})$ 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	$\Delta R \leq \pm(1\% + 0.05 \text{ ohm})$ No visible damage, legible marking	Clause 4.25.1 Rated voltage, 1.5h"ON", 0.5h"OFF", 70°C, 1,000h.
Endurance at the upper category temperature	$\Delta R \leq \pm(1\% + 0.05 \text{ ohm})$ 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	$\Delta R \leq \pm(0.25\% + 0.05 \text{ ohm})$	Clause 4.33 Amount of bend : 3 mm