

Anti-sulfurated · Small size chip resistors (RXC series)

Ver.1

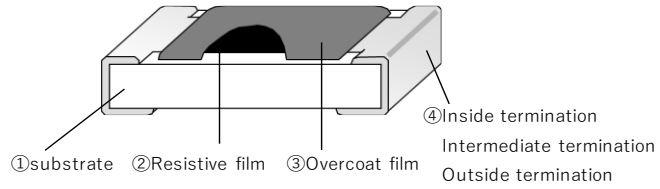
RXC01 (0201) RXC03 (0402) RXC05 (0603)
 RXC10 (0805) RXC18 (1206) RXC33 (1210)
 RXC50 (2010) RXC1S (2512) *(): Inch size

EOL (End of life) : RXC50(2010), RXC1S(2512)

■ Features

- High reliability metal thick film
- The use of special inside termination contribute to high performance of anti-sulfuration.
- RoHS qualified
- ELV qualified
- AEC-Q200 qualified

■ Structure



*This is only a schematic drawing of the structure.

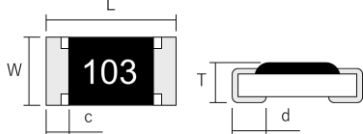
■ Part No. Explanation (Example)

R	X	C	0	3		T	1	0	3	J
Product type			Rated power and Size		T.C.R	Packaging form	Nominal resistance value(*)			Resistance tolerance
RXC : Fixed chip resistors			01:0.05W,0201 03:0.1W,0402 05:0.1W,0603 10:0.125W,0805 18:0.25W,1206 33:0.33W,1210 50:0.5W,2010 1S:1W,2512		K ± 100 (10 ⁻⁶ /°C)	T : 4mm pitch taping φ 180 reel (RXC 03 is 2mm pitch)	The resistance value is indicated by 3-digit numbers.			J ± 5% F ± 1%

*The first two numbers are significant numbers, and the third one is the number of zeros "0" following to the first two numbers (multiple of 10).

*If there is a decimal point in resistance value, it is indicated by "R" and all numbers are significant numbers.

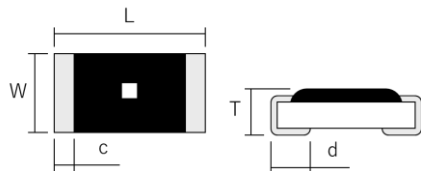
■ Dimensions



* External dimensions are for reference only.
Overcoat film color : Black

The resistance value is indicated by 3-digit numbers. EOL (End of life) : RXC50(2010), RXC1S(2512) (Unit: mm)
 There are no resistance indication in RXC01.
 Indication color of resistance value : yellow

	L	W	T	c	d
RXC01	0.60 ± 0.03	0.30 ± 0.03	0.23 ± 0.03	0.10 ± 0.05	0.15 ± 0.05
RXC33	3.10 ^{+0.20} _{-0.10}	2.60 ± 0.15	0.60 ± 0.10	0.45 ± 0.20	0.35 ± 0.15
RXC50	5.00 ± 0.15	2.50 ± 0.15	0.60 ± 0.10	0.60 ± 0.20	0.60 ± 0.20
RXC1S	6.30 ± 0.20	3.20 ± 0.20	0.60 ± 0.10	0.60 ± 0.20	0.60 ± 0.20



* External dimensions are for reference only.
Overcoat film color : Black

The resistance value is indicated by 3-digit numbers. (Unit: mm)

	L	W	T	c	d
RXC03	1.00 ± 0.05	0.50 ± 0.05	0.35 ± 0.05	0.20 ± 0.10	0.25 ^{+0.05} _{-0.10}
RXC05	1.60 ± 0.15	0.80 ± 0.15	0.45 ± 0.10	0.30 ± 0.15	0.20 ^{+0.20} _{-0.10}
RXC10	2.00 ± 0.15	1.25 ± 0.15	0.55 ^{+0.10} _{-0.05}	0.35 ^{+0.20} _{-0.15}	0.30 ^{+0.20} _{-0.10}
RXC18	3.10 ^{+0.20} _{-0.10}	1.55 ± 0.15	0.55 ^{+0.10} _{-0.05}	0.45 ± 0.20	0.35 ± 0.15

* RXC03 has no indication of resistance value.
Yellow ■ shows anti-sulfuration series.

■ Ratings

Type	Rated power	Limiting element voltage(*1)	Maximum overload voltage(*2)	Range of rated resistance	Tolerance on rated resistance	Category temperature range	Temperature Coefficient of Resistance(T.C.R)	
							Resistance	T.C.R
RXC01	0.05W	25V	50V	1.0Ω~4.7MΩ	J(±5%)	-55°C~+125°C	1.0Ω~9.1Ω	+500×10 ⁻⁶ /°C -100×10 ⁻⁶ /°C
				10Ω~1MΩ	F(±1%)		10Ω~3.3MΩ	±200×10 ⁻⁶ /°C
RXC03	0.1W	50V	100V	1.0Ω~3.3MΩ	J(±5%)	-55°C~+155°C	1.0Ω~9.1Ω	+500×10 ⁻⁶ /°C -100×10 ⁻⁶ /°C
				10Ω~1MΩ	F(±1%)		10Ω~3.3MΩ	±200×10 ⁻⁶ /°C
RXC05	0.1W	50V	100V	1.0Ω~10MΩ	J(±5%)	-55°C~+155°C	1.0Ω~9.1Ω	+500×10 ⁻⁶ /°C -100×10 ⁻⁶ /°C
				10Ω~1MΩ	F(±1%)		10Ω~10MΩ	±200×10 ⁻⁶ /°C
RXC10	0.125W	150V	200V	1.0Ω~10MΩ	J(±5%)	-55°C~+155°C	1.0Ω~9.1Ω	+500×10 ⁻⁶ /°C -100×10 ⁻⁶ /°C
				10Ω~2.2MΩ	F(±1%)		10Ω~2.2MΩ	±200×10 ⁻⁶ /°C
RXC18	0.25W	200V	400V	1.0Ω~10MΩ	J(±5%)	-55°C~+155°C	1.0Ω~9.1Ω	+500×10 ⁻⁶ /°C -100×10 ⁻⁶ /°C
				10Ω~2.2MΩ	F(±1%)		10Ω~2.2MΩ	±200×10 ⁻⁶ /°C
RXC33	0.33W	200V	400V	1.0Ω~10MΩ	J(±5%)	-55°C~+155°C	1.0Ω~9.1Ω	+500×10 ⁻⁶ /°C -100×10 ⁻⁶ /°C
				10Ω~1MΩ	F(±1%)		10Ω~10MΩ	±200×10 ⁻⁶ /°C
RXC50	0.5W	200V	400V	1.0Ω~10MΩ	J(±5%)	-55°C~+155°C	1.0Ω~9.1Ω	+500×10 ⁻⁶ /°C -100×10 ⁻⁶ /°C
				10Ω~1MΩ	F(±1%)		10Ω~10MΩ	±200×10 ⁻⁶ /°C
RXC1S	1W	200V	400V	1.0Ω~10MΩ	J(±5%)	-55°C~+155°C	1.0Ω~9.1Ω	+500×10 ⁻⁶ /°C -100×10 ⁻⁶ /°C
				10Ω~1MΩ	F(±1%)		10Ω~10MΩ	±200×10 ⁻⁶ /°C

(*1) Rated voltage = $\sqrt{\text{Rated power} \times \text{Resistance value}}$

In the case of rated voltage over above limiting element voltage, limiting element voltage will be the maximum.

(*2) The applied voltage in short time overload test = 2.5×rated voltage

In the case of the applied voltage in short time overload test over above maximum overload voltage, maximum overload voltage will be the maximum.

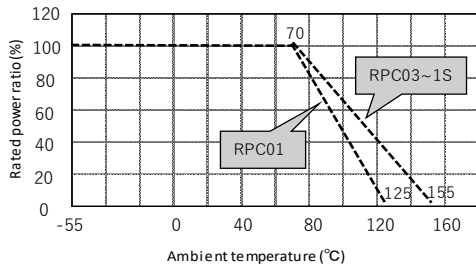
* There are the supplementary information about rating on reference page.

* Temperature Coefficient of Resistance (T.C.R) is based on JIS C5201-1 6.2 between two points: 25°C and 125°C.

■ Specifications and test methods

Item	Specifications	Test method
Overload	± (2%+0.05Ω)	JIS C5201-1 8.1 2.5×Rated voltage, for 5 seconds
Bend strength of the face plating	± (1%+0.05Ω)	JIS C5201-1 9.8 Bending distance : 3mm
Resistance to soldering heat	± (1%+0.05Ω)	JIS C5201-1 11.2 260±5°C.10(sec.)
Solderability	Covered with more than 95%	JIS C5201-1 11.1 245±3°C.2(sec.)
Rapid change of temperature	± (1%+0.05Ω)	JIS C5201-1 10.1 -55°C⇄+125°C,1000(times)
Loadlife in humidity	± (3%+0.05Ω)	60±2°C.90~95% R.H 1000h
Endurance at 70°C	± (3%+0.05Ω)	JIS C5201-1 7.1 70±2°C.1000h

■ Derating curve



* Rated power of the resistor is the maximum power which can be loaded continuously at the ambient temperature of 70 °C. For the ambient temperature above 70°C, please use according to the load derating curve (dotted line). Please note that the component surface temperature does not exceed operating temperature range.