

**Anti-sulfurated · low resistance thick film chip resistor RXL series**

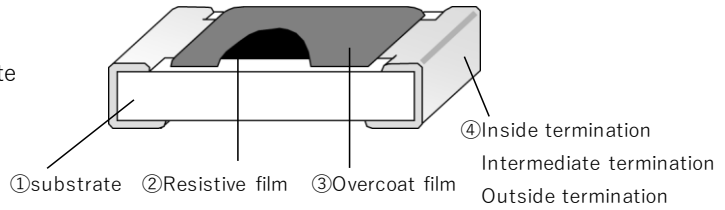
**RXL03 (0402) RXL05 (0603) RXL10 (0805)**  
**RXL18 (1206) RXL33 (1210) RXL50 (2010)**  
**RXL1S (2512)** \*( ): Inch size

**Not recommended** : RXL18(1206) RXL33(1210)  
**EOL (End of life)** : RXL03(0402) RXL50(2010) RXL1S(2512)

■ Features

- Lineup from 0.1Ω low resistance value
- 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)

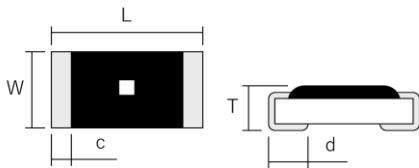
R	X	L	0	3	T	R	1	0	J
Product type			Rated power and Size		Packaging form	Nominal resistance			Resistance
RXL : low resistance value			03:0.125W,0402 05:0.2W,0603 10:0.33W,0805 18:0.5W,1206 33:0.66W,1210 50:0.75W,2010 1S:1W,2512		T : 4mm pitch taping φ 180 reel (RXL 03 is 2mm pitch)	The resistance value 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

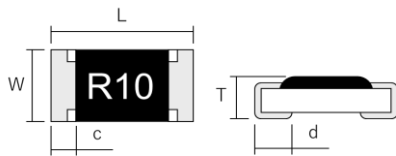


\* External dimensions are for reference only.

\* There are no resistance value indication in RXL03.

Yellow ■ shows anti-sulfuration series.

Overcoat film color : Black



\* External dimensions are for reference only.

Overcoat film color : Black

The resistance value is indicated by 3-digit numbers.

Indication color of resistance value : yellow

	L	W	T	c	d
RXL03	1.00 ± 0.05	0.50 ± 0.05	0.35 ± 0.05	0.20 ± 0.10	0.25 <sup>+0.10</sup> <sub>-0.05</sub>
RXL05	1.60 ± 0.15	0.80 ± 0.15	0.45 ± 0.10	0.30 ± 0.15	0.35 ± 0.15
RXL10	2.00 ± 0.15	1.25 ± 0.15	0.55 <sup>+0.10</sup> <sub>-0.05</sub>	0.35 <sup>+0.20</sup> <sub>-0.15</sub>	0.40 ± 0.15
RXL18	3.10 <sup>+0.20</sup> <sub>-0.10</sub>	1.55 ± 0.15	0.55 <sup>+0.10</sup> <sub>-0.05</sub>	0.45 ± 0.20	0.50 <sup>+0.20</sup> <sub>-0.15</sub>
RXL33	3.10 <sup>+0.20</sup> <sub>-0.10</sub>	2.60 ± 0.15	0.60 ± 0.10	0.45 ± 0.20	0.50 <sup>+0.20</sup> <sub>-0.15</sub>
RXL50	5.00 ± 0.15	2.50 ± 0.15	0.60 ± 0.10	0.60 ± 0.20	0.60 ± 0.20
RXL1S	6.30 ± 0.20	3.20 ± 0.20	0.60 ± 0.10	0.60 ± 0.20	0.60 ± 0.20

**Not recommended** : RXL18(1206) , RXL33(1210)

**EOL (End of life)** : RXL03(0402) , RXL50(2010) , RXL1S(2512)

(Unit: mm)

## ■ Ratings

	Rated power	Range of rated resistance	Tolerance on rated resistance	Category temperature range	Temperature Coefficient of Resistance(T.C.R)	
RXL03	0.125 W	0.22Ω~10Ω	J(±5%) F(±1%)	-55°C~+155°C	0.22Ω~10Ω	± 200×10 <sup>-6</sup> /°C
RXL05	0.2 W	0.10Ω~10Ω	J(±5%) F(±1%)	-55°C~+155°C	0.10Ω~0.20Ω	± 250×10 <sup>-6</sup> /°C
					0.22Ω~10Ω	± 200×10 <sup>-6</sup> /°C
RXL10	0.33 W	0.10Ω~10Ω	J(±5%) F(±1%)	-55°C~+155°C	0.10Ω~0.20Ω	± 250×10 <sup>-6</sup> /°C
					0.22Ω~10Ω	± 200×10 <sup>-6</sup> /°C
RXL18	0.5 W	0.10Ω~10Ω	J(±5%) F(±1%)	-55°C~+155°C	0.10Ω~0.20Ω	± 250×10 <sup>-6</sup> /°C
					0.22Ω~10Ω	± 200×10 <sup>-6</sup> /°C
RXL33	0.66 W	0.10Ω~10Ω	J(±5%) F(±1%)	-55°C~+155°C	0.10Ω~0.20Ω	± 250×10 <sup>-6</sup> /°C
					0.22Ω~10Ω	± 200×10 <sup>-6</sup> /°C
RXL50	0.75 W	0.10Ω~10Ω	J(±5%) F(±1%)	-55°C~+155°C	0.10Ω~0.20Ω	± 250×10 <sup>-6</sup> /°C
					0.22Ω~10Ω	± 200×10 <sup>-6</sup> /°C
RXL1S	1 W	0.10Ω~10Ω	J(±5%) F(±1%)	-55°C~+155°C	0.10Ω~0.20Ω	± 250×10 <sup>-6</sup> /°C
					0.22Ω~10Ω	± 200×10 <sup>-6</sup> /°C

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

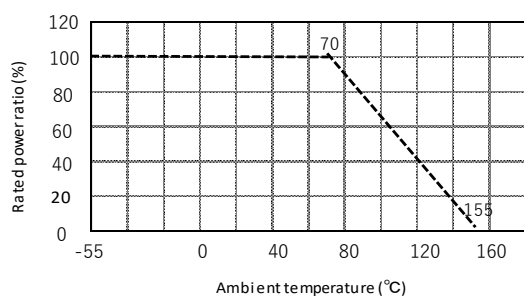
\* There are the supplementary information about rating on reference page.

\* 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%+0.005Ω)	JIS C5201-1 8.1 2.5×Rated voltage, for 5 seconds
Bend strength of the face plating	± (1%+0.005Ω)	JIS C5201-1 9.8 Bending distance : 3mm
Resistance to soldering heat	± (1%+0.005Ω)	JIS C5201-1 11.2 260±5°C.10(sec.)
Solderability	Covered with more than 95%	JIS C5201-1 11.1 245±3°C.(sec.)
Rapid change of temperature	± (1%+0.005Ω)	JIS C5201-1 10.1 -55°C⇄+125°C,1000(times)
Loadlife in humidity	± (3%+0.005Ω)	60±2°C.90~95% R.H 1000h
Endurance at 70°C	± (3%+0.005Ω)	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.