



# Low resistance chip resistors (short-side terminal)

## RL series

### Features

- Innovative structure that takes consideration of heat dissipation suppress the surface temperature enabling the small sizes reducing the influence of heat on surrounding components.

### Applications

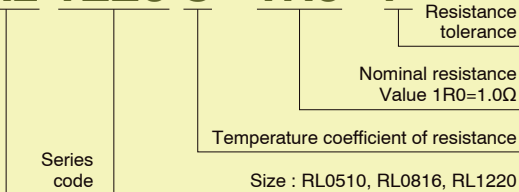
- PC power sources, inverters, automotive electronics, adapters, industrial machines



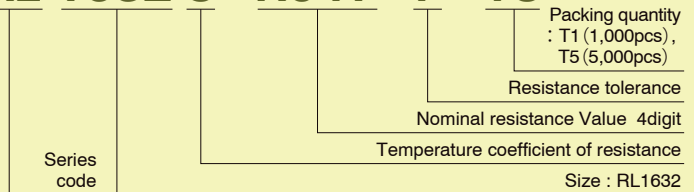
\*1 : Except for RL0510, RL1632 and RL3264

### Part numbering system

**RL 1220 S - 1R0 - F**



**RL 1632 S - R047 - F - T5**

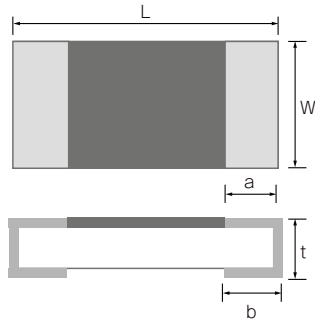


### Electrical Specification

Type	Power ratings	Temperature coefficient of resistance (ppm/°C)	Resistance range(Ω) Resistance tolerance			Maximum voltage	Resistance value series	Operating temperature	Packaging quantity
			±1% (F)	±2% (G)	±5% (J)				
RL0510	1/8W	0 ~ +350(T)	50m < R < 100m		—	√(P · R)	E-24	-55°C ~ 125°C	10,000pcs
	1/6W	0 ~ +200(S)	100m ≤ R ≤ 47		—				
RL0816	1/4W	0 ~ +200(S)	20m ≤ R < 100m						5,000pcs
		0 ~ +350(T)	5.1 ≤ R ≤ 47						
	1/5W	0 ~ +100(R)	100m ≤ R ≤ 6.8	—					
0 ~ +200(S)		7.5 ≤ R ≤ 68							
RL1220	1/4W	0 ~ +200(S)	43m ≤ 91m						
		0 ~ +350(T)	10m ≤ 91m						
	1/3W	0 ~ +100(R)	100m ≤ R ≤ 10						
0 ~ +200(S)		11 ≤ R ≤ 100							
RL1632	1/2W	0 ~ +100(R)	510m ≤ R ≤ 4.7 <sup>*1</sup>	56m ≤ R ≤ 470m	—	—			
		0 ~ +200(S)	—	33m ≤ R ≤ 51m	—				
		0 ~ +350(T)	—	27m ≤ R ≤ 30m	18m ≤ R ≤ 24m				
		0 ~ +500(T)	—	—	10m ≤ R ≤ 16m				

\*1 RL series with resistance tolerance 0.5% is also available. Please contact our sales office.

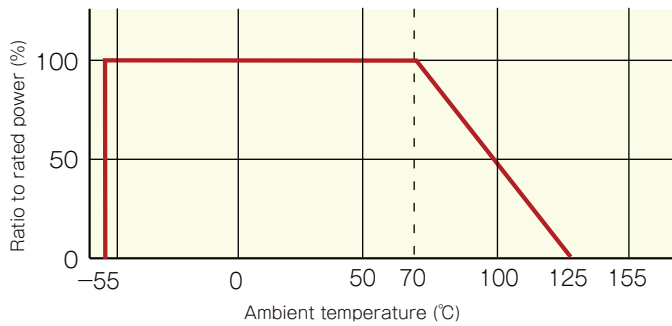
### ◆ Dimensions



Type	Size (inch)	L	W	a	b	t
RL0510	R ≤ 0.2Ω	0402	1.00±0.05	0.50±0.05	0.15±0.10	0.25±0.10
	R > 0.2Ω					0.15±0.10
RL0816	R ≤ 0.082Ω	0603	1.60±0.20	0.80±0.20	0.20±0.15	0.25±0.20
	R > 0.091Ω					0.20±0.15
RL1220	R ≤ 0.068Ω	0805	2.00±0.20	1.25±0.20	0.40±0.20	0.40±0.20
	R > 0.075Ω					0.40±0.20
RL1632		1206	3.20±0.20	1.60±0.20	—	1.00±0.15

(unit : mm)

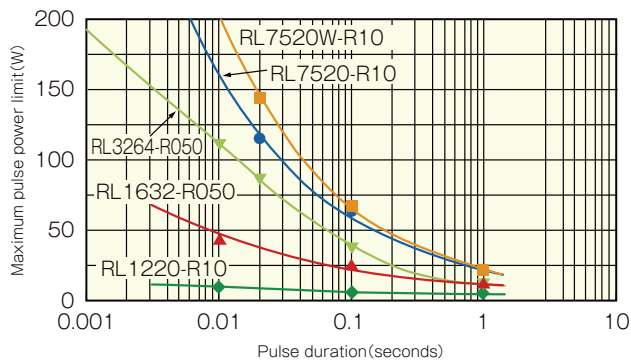
### ◆ Derating Curve



Current sensing surface mount resistors

RL series

### ◆ Resistance to pulse power



#### Test procedure

Voltage pulse is applied to the test samples mounted on the test board.

After each pulse, resistance drift is measured. Pulse voltage is increased until the drift exceeds +/-0.5%.

The power at that voltage is defined as the maximum pulse power.