



# 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.

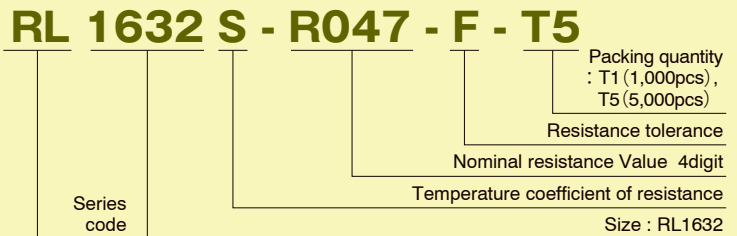
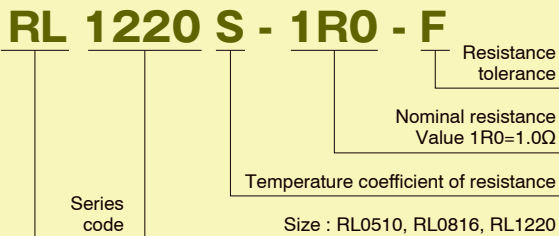
### Applications

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



\*1 : Except for RL0510, RL1632 and RL3264

### ◆Part numbering system



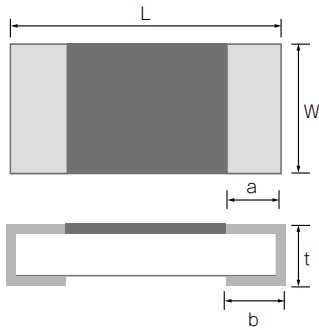
### ◆Electrical Specification

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						
		0 ~ +350(T)	20m≤R<100m						
	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	—	—	—	T1 T5	
		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.

Current sensing surface mount resistors  
RL series

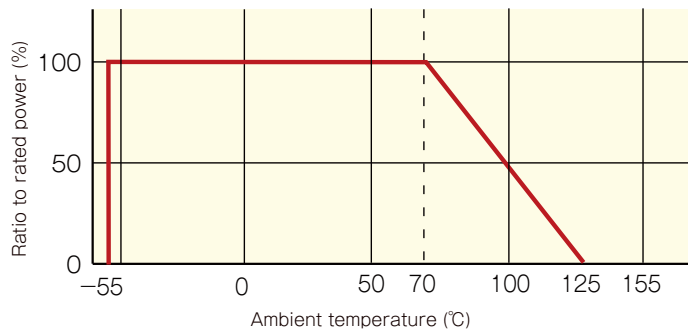
### ◆ Dimensions



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

(unit : mm)

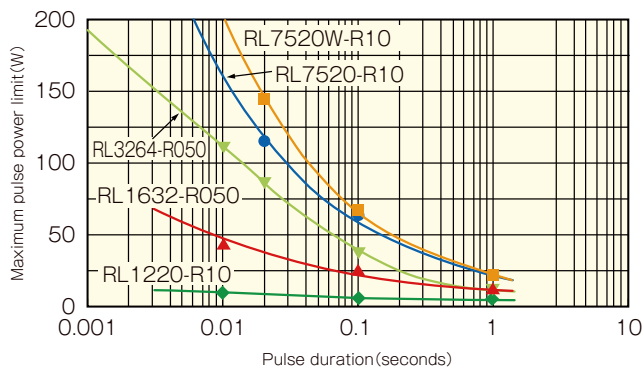
### ◆ Derating Curve



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.