



# 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**

Series code	Size : RL0510, RL0816, RL1220	Temperature coefficient of resistance	Nominal resistance Value 1R0=1.0Ω	Resistance tolerance
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**RL 1632 S - R047 - F - T5**

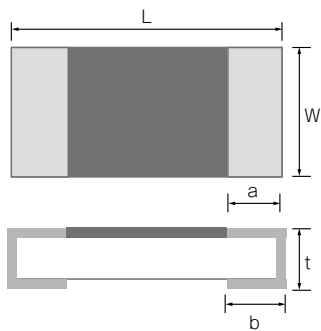
Series code	Size : RL1632, RL3264	Temperature coefficient of resistance	Nominal resistance Value 4digit	Resistance tolerance	Packing quantity : T1 (1,000pcs), T5 (5,000pcs)
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## ◆Electrical Specification

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≤4.7													
RL0816	1/4W	0 ~ +200(S)	20m≤R<100m						√(P · R)	E-24	-55°C ~ 125°C	5,000pcs				
		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≤R≤91m										√(P · R)	E-24	-55°C ~ 125°C	5,000pcs
		0 ~ +350(T)	10m≤R≤39m													
	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	—	√(P · R)	E-24	-55°C ~ 125°C				T1				
		0 ~ +200(S)	—	33m≤R≤51m	—											
		0 ~ +350(T)	—	27m≤R≤30m	18m≤R≤24m											
		0 ~ +500(T)	—	—	10m≤R≤16m											
RL3264	1W	0 ~ +100(R)	—	56m≤R≤470m	—				√(P · R)	E-24	-55°C ~ 125°C					T5
		0 ~ +200(S)	—	33m≤R≤47m	—											
		0 ~ +350(T)	—	27m	18m≤R≤22m											
		0 ~ +500(T)	—	—	10m≤R≤15m											

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

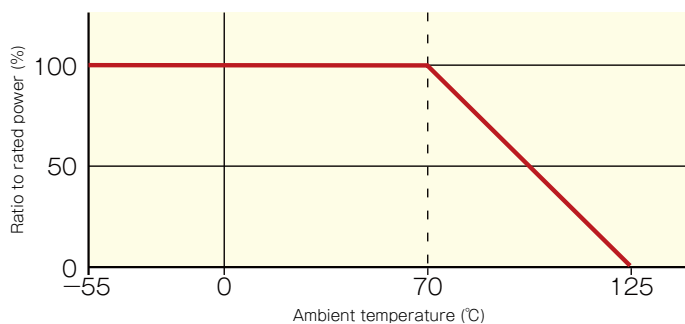
### ◆ Dimensions



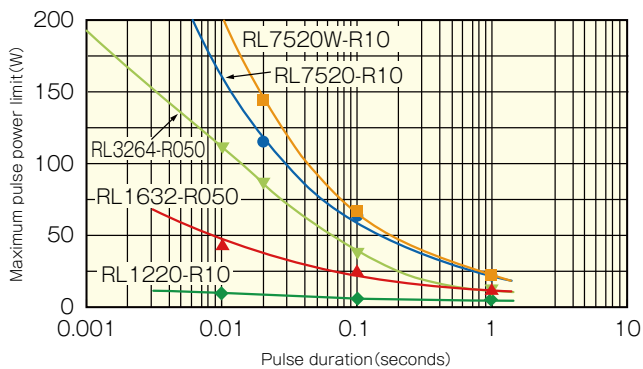
Type	Size (inch)	L	W	a	b	t	
RL0510	$R \leq 0.2\Omega$	0402	$1.00 \pm 0.05$	$0.50 \pm 0.05$	$0.15 \pm 0.10$	$0.25 \pm 0.10$	
	$R > 0.2\Omega$					$0.15 \pm 0.10$	$0.35 \pm 0.10$
RL0816	$R \leq 0.082\Omega$	0603	$1.60 \pm 0.20$	$0.80 \pm 0.20$	$0.20 \pm 0.15$	$0.25 \pm 0.20$	
	$R > 0.091\Omega$					$0.20 \pm 0.15$	$0.45 \pm 0.10$
RL1220	$R \leq 0.068\Omega$	0805	$2.00 \pm 0.20$	$1.25 \pm 0.20$	$0.40 \pm 0.20$	$0.40 \pm 0.20$	
	$R > 0.075\Omega$					$0.40 \pm 0.20$	$0.50 \pm 0.20$
RL1632		1206	$3.20 \pm 0.20$	$1.60 \pm 0.20$	—	$1.00 \pm 0.15$	$0.50 \pm 0.15$
RL3264		2512	$6.40 \pm 0.20$	$3.20 \pm 0.20$	—	$2.00 \pm 0.15$	$0.50 \pm 0.15$

(unit : mm)

### ◆ Derating Curve



### ◆ Resistance to power pulse



#### 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.