



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, RL1632, RL3264

Resistance tolerance

Nominal resistance value
(1.0Ω=1R0, below 0.09Ω=R0** : 4 digit)
RL1632 or RL3264: 4 digit

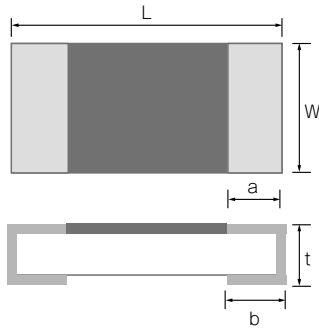
Temperature coefficient of resistance

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						
		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						
		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*1	56m≤R≤470m	—	—			
		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	—	—			
		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.

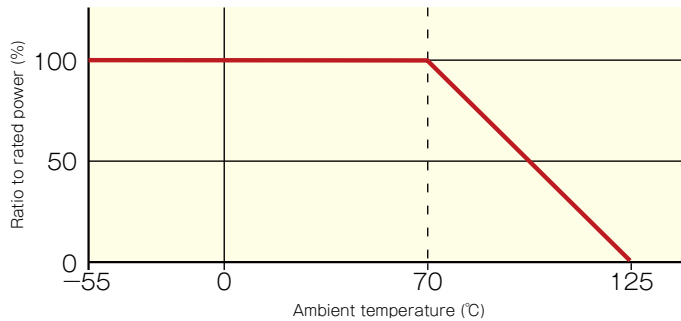
◆ Dimensions



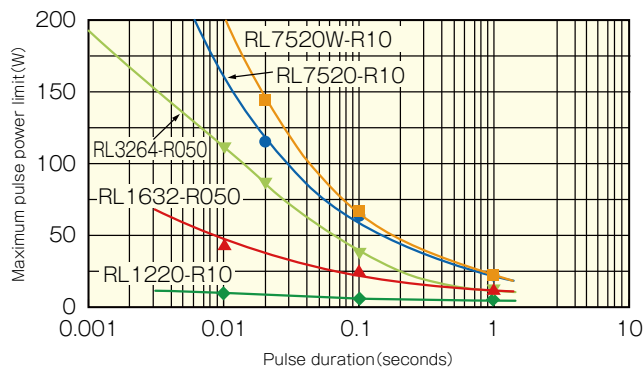
Type	Size (inch)	L	W	a	b	t
RL0510	$R \leq 0.2\Omega$	0402	1.00 ± 0.05	0.50 ± 0.05	0.15 ± 0.10	0.25 ± 0.10
	$R > 0.2\Omega$					0.15 ± 0.10
RL0816	$R \leq 0.082\Omega$	0603	1.60 ± 0.20	0.80 ± 0.20	0.20 ± 0.15	0.25 ± 0.20
	$R > 0.091\Omega$					0.20 ± 0.15
RL1220	$R \leq 0.068\Omega$	0805	2.00 ± 0.20	1.25 ± 0.20	0.40 ± 0.20	0.40 ± 0.20
	$R > 0.075\Omega$					0.40 ± 0.20
RL1632	1206	3.20 ± 0.20	1.60 ± 0.20	—	1.00 ± 0.15	0.50 ± 0.15
RL3264	2512	6.40 ± 0.20	3.20 ± 0.20	—	2.00 ± 0.15	0.50 ± 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 $\pm 0.5\%$.

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