



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.

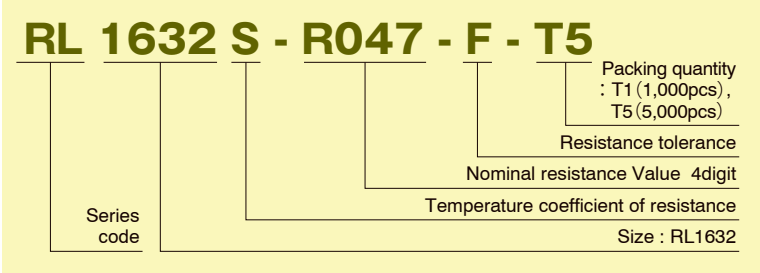
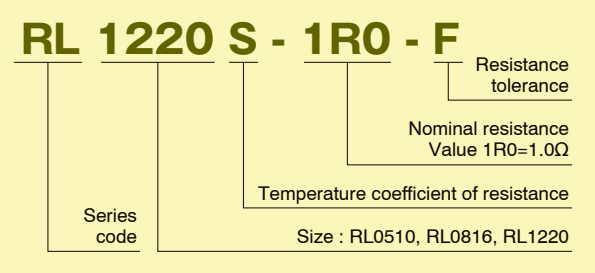
Applications

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



*1 : Except for RL0510, RL1632 and RL3264

◆Part numbering system

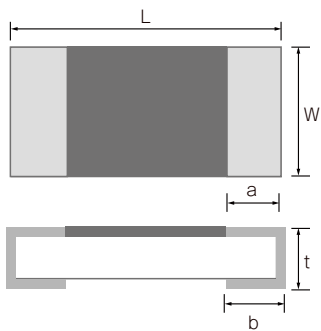


◆Electrical Specification

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

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

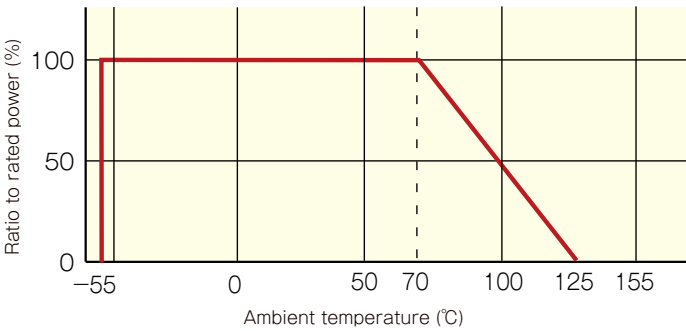
◆Dimensions



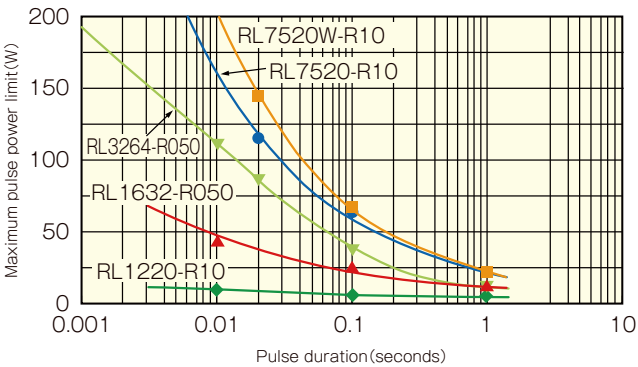
Type		Size (inch)	L	W	a	b	t
RL0510	$R \leq 0.2\Omega$	0402	1.00 ± 0.05	0.50 ± 0.05	0.15 ± 0.10	0.25 ± 0.10	$0.35 + 0.15 / - 0.10$
	$R > 0.2\Omega$					0.15 ± 0.10	0.35 ± 0.10
RL0816	$R \leq 0.082\Omega$	0603	1.60 ± 0.20	0.80 ± 0.20	0.20 ± 0.15	0.25 ± 0.20	$0.45 + 0.15 / - 0.10$
	$R > 0.091\Omega$					0.20 ± 0.15	0.45 ± 0.10
RL1220	$R \leq 0.068\Omega$	0805	2.00 ± 0.20	1.25 ± 0.20	0.40 ± 0.20	0.40 ± 0.20	0.50 ± 0.20
	$R > 0.075\Omega$					0.40 ± 0.20	0.40 ± 0.10
RL1632		1206	3.20 ± 0.20	1.60 ± 0.20	—	1.00 ± 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 +/-0.5%.
The power at that voltage is defined as the maximum pulse power.

Current sensing surface mount resistors
RL series