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, adopters, industrial machines

Lead free *1 | Halogen free | RoHS Compliance

*1 : Except for RL0510, RL1632 and RL3264

◆Part numbering system

RL 1220 S - 1R0 - F

- F : Resistance tolerance
- 1R0 : Nominal resistance Value 1R0=1.0Ω
- S : Temperature coefficient of resistance
- 1220 : Size : RL0510, RL0816, RL1220
- RL : Series code

RL 1632 S - R047 - F - T5

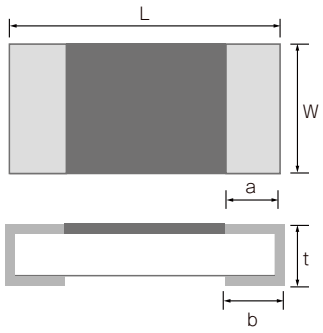
- T5 : Packing quantity : T1 (1,000pcs), T5 (5,000pcs)
- F : Resistance tolerance
- R047 : Nominal resistance Value 4digit
- S : Temperature coefficient of resistance
- 1632 : Size : RL1632
- RL : Series code

◆Electrical Specification

Type	Power ratings	Temperature coefficient of resistance (ppm/°C)	Resistance range(Ω) Resistance tolerance ±1% (F)	±2% (G)	±5% (J)	Maximum voltage	Resistance value series	Operating temperature	Packaging quantity
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		—				
			5.1≦R≦47						
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≦R≦91m						
		0～+350(T)	10m≦R≦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	—				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.

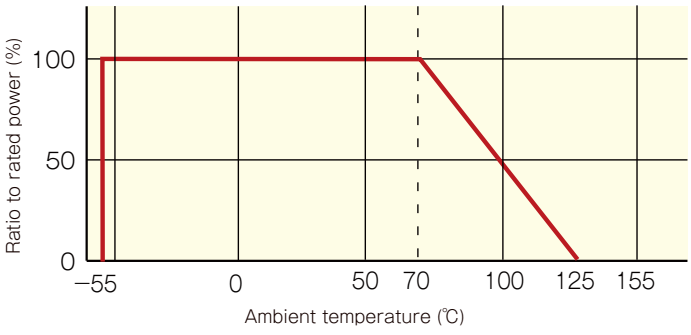
◆Dimensions



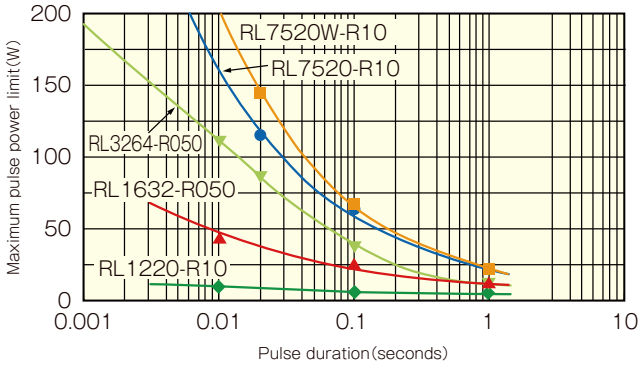
Type		Size (inch)	L	W	a	b	t
RL0510	R≦0.2Ω	0402	1.00±0.05	0.50±0.05	0.15±0.10	0.25±0.10	0.35+0.15/−0.10
	R>0.2Ω					0.15±0.10	0.35±0.10
RL0816	R≦0.082Ω	0603	1.60±0.20	0.80±0.20	0.20±0.15	0.25±0.20	0.45+0.15/−0.10
	R>0.091Ω					0.20±0.15	0.45±0.10
RL1220	R≦0.068Ω	0805	2.00±0.20	1.25±0.20	0.40±0.20	0.40±0.20	0.50±0.20
	R>0.075Ω						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.