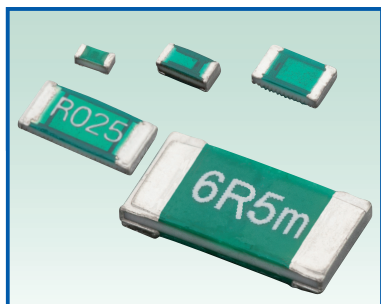


# Low resistance chip resistors (short-side terminals type)

■ This series includes (some of) former RP and RPH series



\* 1 : Except for RL0510, RL1632, RL3264

## Features

- The distinctive structure that encourages heat dissipation and radiation limits the rise of the surface temperature, allows the realization of smaller sizes, and reduces the influence of heat on surrounding components.

## Applications

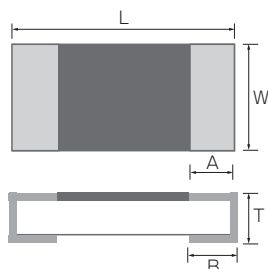
- PCs, power sources, mobile phones, automotive electronics, adaptor and industrial machining equipment.

## Specifications

\* All made to order.

### Dimensions

unit : mm



Dimension (inch)	RL0510 (0402) (OLD:RP1005 included)		RL0816 (0603) (OLD:RP1608,RPH1608 included)		RL1220 (0805) (OLD:RP2012 included)		RL1632 (1206)	RL3264 (2512)
	R ≤ 0.2Ω	R > 0.2Ω	R ≤ 0.082Ω	R > 0.091Ω	R ≤ 0.068Ω	R > 0.075Ω		
L	1.00±0.05		1.60±0.20		2.00±0.20		3.20±0.20	6.40±0.20
W	0.50±0.05		0.80±0.20		1.25±0.20		1.60±0.20	3.20±0.20
A	0.15±0.10		0.20±0.15		0.40±0.20		—	—
B	0.25±0.10	0.15±0.10	0.25±0.20	0.20±0.15	0.40±0.20		1.00±0.15	2.00±0.15
T	0.35±0.15/-0.10	0.35±0.10	0.45±0.15/-0.10	0.45±0.10	0.50±0.20	0.40±0.10	0.50±0.15	0.50±0.15

**NOTE** Obsoleted: RP1005, RP1608, RPH1608, RP2012  
Alternative P/N:RL0510, RL0816, RL1220

### Electrical characteristics

Series name	RL0510 (OLD : RP1005 included)			RL0816 (OLD:RP1608,RPH1608 included)			RL1220 (OLD:RP2012 included)				
Power	1/8W	1/6W (OLD : RP1005 included)		1/4W (OLD : RPH1608)	1/5W (OLD : RP1608)		1/4W		1/3W (OLD : RP2012)		
E series offered	E-24										
Resistance range (Ω)	R<0.05~0.1	0.1~4.7	5.1~47	R<0.02~0.1	0.1~6.8	7.5~68	0.01~0.039	0.043~0.091	0.1~10	11~100	
Resistance tolerance (%)	±1.0 (F)	○	○	○	○	○	○	○	○	○	
	±2.0 (G)	○	○	○	○	○	○	○	○	○	
	±5.0 (J)	—	—	○	○	○	○	○	○	○	
Temperature coefficient of resistance (ppm/°C)	0~+100(R)	—	—	—	○	—	—	—	○	—	
	0~+200(S)	—	○	○	○	○	—	○	○	○	
	0~+350(T)	○	—	—	○	—	—	○	○	—	
Maximum voltage	$\sqrt{(P \cdot R)}$										
Operating temperature	-55 ~ 125°C										
Packaging	5,000pcs	—			—			○		—	
	10,000pcs	○			—			—		—	

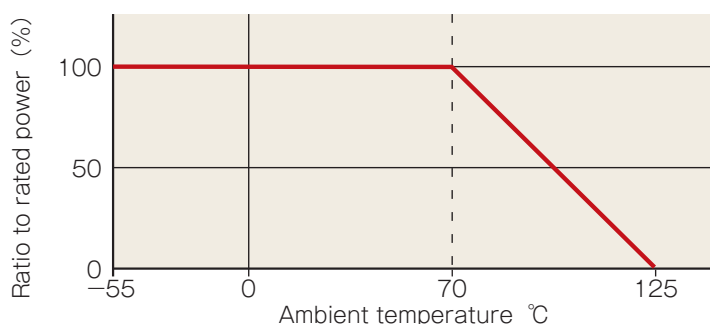
Series name	RL1632					
Power	1/ 2W					
E series offered	E-24					
Resistance range (Ω)	0.01 ~ 0.016	0.018 ~ 0.024	0.027 ~ 0.03	0.033 ~ 0.051	0.056 ~ 0.47	0.51 ~ 4.7
Resistance tolerance (%)	±0.5 (D)	—	—	—	—	○
	±1.0 (F)	—	—	○	○	○
	±2.0 (G)	○	○	○	○	○
Temperature coefficient of resistance (ppm/°C)	0~+100(R)	—	—	—	○	○
	0~+200(S)	—	—	—	○	—
	0~+350(T)	—	○	○	—	—
	0~+500(T)	○	—	—	—	—
Maximum voltage	$\sqrt{(P \cdot R)}$					
Operating temperature	-55 ~ 125°C					
Packaging	5,000pcs ○					

Series name	RL3264				
Power	1W				
E series offered	Standard stock item : E-24series E-12series				
Resistance range (Ω)	0.01 ~ 0.015	0.018 ~ 0.022	0.027	0.033 ~ 0.047	0.056 ~ 0.47
Resistance tolerance (%)	±0.1 (B)	—	—	—	—
	±0.5 (D)	—	—	—	—
	±1.0 (F)	—	—	○	○
	±2.0 (G)	○	○	○	○
	±5.0 (J)	—	—	—	—
Temperature coefficient of resistance (ppm/°C)	0 ~ +100 (R)	—	—	—	○
	0 ~ +200 (S)	—	—	○	—
	0 ~ +350 (T)	—	○	○	—
	0 ~ +500 (T)	○	—	—	—
Maximum voltage	$\sqrt{P \cdot R}$				
Operating temperature	-55 ~ 125°C				
Packaging	5,000pcs ○				

Current sensing surface mount resistors

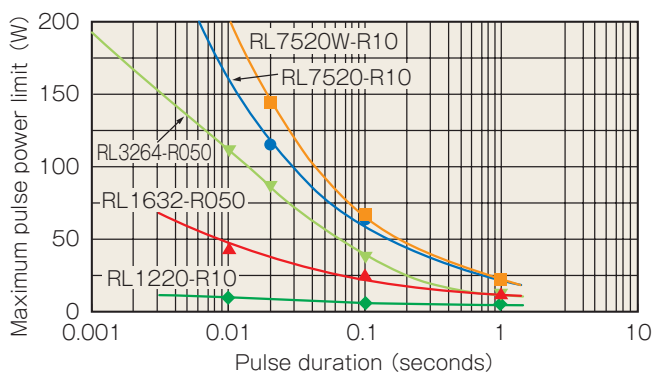
RL series

### Power derating characteristics



Power 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.

### Part numbering system

