

Low resistance chip resistors
(long-side terminal)

■PRL / RL series

Features

・Innovative structure that takes consideration of heat dissipation suppresses the surface temperature enabling the small sizes, reduction of the influence on surrounding components, excellent temperature cycle resistance, low ESL and low noise.

Applications

・PC power sources, inverters, automotive electronics, adopters, industrial machines

Lead free　Halogen free　RoHS Compliance

◆Part numbering system

PRL 1220 - R010 - D - T5

- PRL: Series code
- 1220: Size: PRL0816, PRL1220, PRL1632, PRL3264
- R010: Nominal resistance value
- D: Resistance tolerance
- T5: Packaging quantity: T5(5,000pcs)

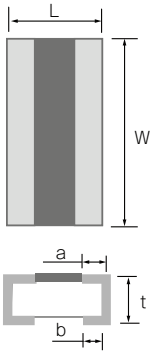
RL 3720W T - R10 - F

- RL: Series code
- 3720W: Size: RL3720W, RL7520W
- T: Temperature coefficient of resistance
- R10: Nominal resistance value
- F: Resistance tolerance

◆Electrical Specification

Type	Power ratings	Temperature coefficient of resistance (ppm/°C)	Resistance range(Ω) Resistance tolerance ±0.5% (D)	±1% (F)	±2% (G)	±5% (J)	Maximum voltage	Resistance value series	Operating temperature	Packaging quantity
PRL0816	1/3W	±50	75m≦R≦100m		–	–	√(P・R)	E-24	-40℃ ~ 125℃	T5
		±100	43m≦R≦68m							
			–	33m≦R≦39m						
		0～+200	–	18m≦R≦27m						
		0～+350	–	10m≦R≦15m						
PRL1220	2/3W	±50	56m≦R≦100m			–		E-24 1m step (7m ~ 10m)		
		±100	47m≦R≦51m							
			–	20m≦R≦43m						
		0～+200	–	10m≦R≦18m						
		0～+350		–	7m≦R≦9m					
PRL1632	1W	±50	56m≦R≦100m			–		E-24 1m step (5m ~ 10m)		
		±100	20m≦R≦51m							
		0～+200	10m≦R≦18m							
		0～+350	–	5m≦R≦9m						
PRL3264	2W	±50	56m≦R≦100m			–		E-24 1m step (3m ~ 10m)		
		±100	47m≦R≦51m							
		0～+200	–	20m≦R≦43m						
		0～+350	–	10m≦R≦18m						
			–	5m≦R≦9m		3m≦R≦4m				
RL3720W	1W	±50(Q) ±100(R)	–	100m≦R≦1		–		E-24 1m step (1m ~ 10m)	-55℃ ~ 125℃	4,000pcs
		0～+200(S)	–	5m≦R≦91m						
		0～+350(T)	–	1m≦R≦4m						
RL7520W	2W	±50(Q) ±100(R)	–	100m≦R≦470m		–		E-24 1m step (1m ~ 10m)		
				10m≦R≦91m						
		0～+200(S)	–	100m≦R≦470m						
		0～+350(T)	–	10m≦R≦91m						
		0～+420(T)	–	5m≦R≦9m						
		0～+800(T)	–	1m≦R≦4m						

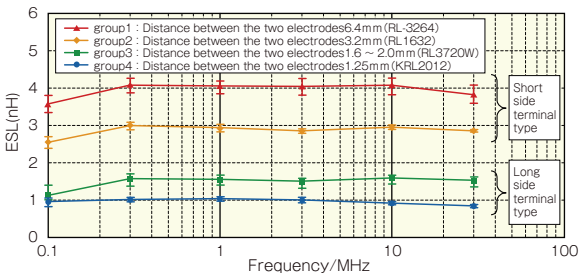
◆Dimensions



Type	Size (inch)	L	W	a	b	t
PRL0816	0603	0.80±0.20	1.60±0.20	–	0.20±0.10	0.40±0.10
PRL1220	0805	1.25±0.20	2.00±0.20	–	0.35±0.15	0.50±0.10
PRL1632	1206	1.60±0.20	3.20±0.20	–	0.45±0.15	0.50±0.10
PRL3264	2512	3.20±0.20	6.40±0.20	–	0.90±0.15	0.50±0.10
RL3720W	1508	2.00±0.20	3.75±0.30	0.40±0.20	0.40+0.20	0.50±0.20
RL7520W	3008	2.00±0.20	7.50±0.30	0.40±0.20	0.40±0.20	0.50±0.20

(unit : mm)

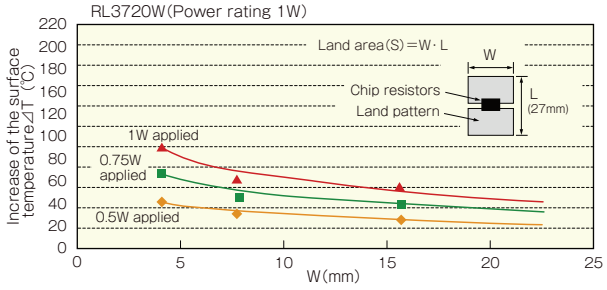
◆ESL (Equivalent series inductance)

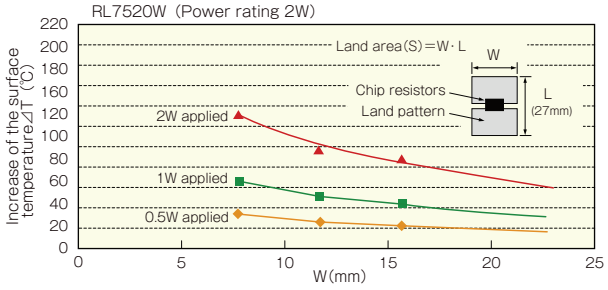


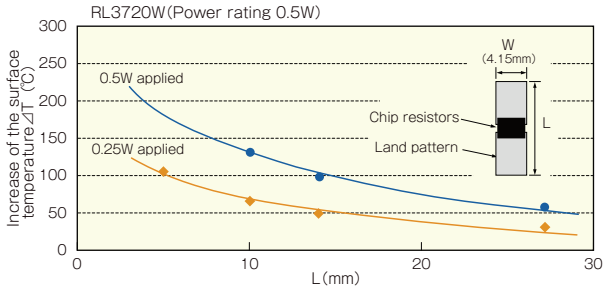
◆Surface temperature data

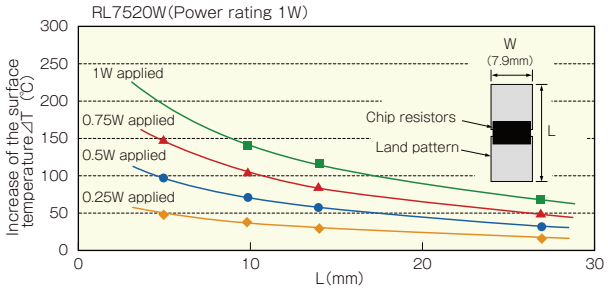
○ The high power type land pattern and surface temperature

These high-power low resistance chip resistors are designed to dissipate heat efficiently through the land patterns on circuit boards. The actual temperature of the surface of the resistor is dependent upon the dimensions and the shape of the land patterns.

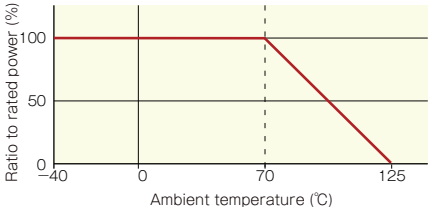




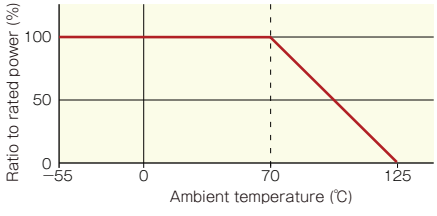




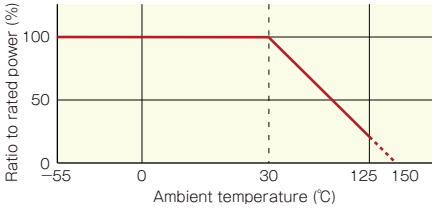
◆Derating Curve



PRL series

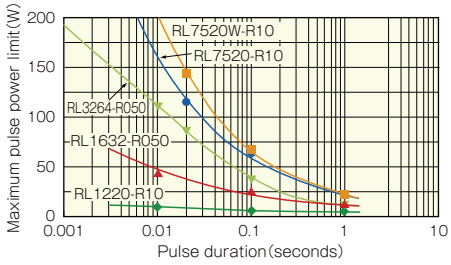


RL3720W



RL7520W

◆Resistance to pulse power



Test procedure

Voltage pulse is applied to the test samples mounted on the test board.
After each pulse, resistance drift is measured. Pulse vol tage is increased until the drift exceeds +/-0.5%.
The power at that voltage is defined as the maximum pulse power.