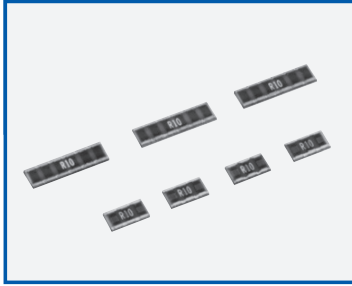


Low resistance chip resistors (long side terminal type)

■ This series includes (some of) former PRL/RL series



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 influence of heat on surrounding components. Low ESL contributes to less noise. This product also withstands temperature cycles very well.

Applications

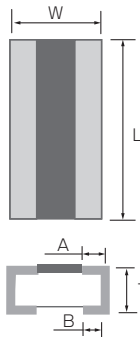
- PCs, power sources, inverters, automotive electronics, adaptors and industrial machining equipment.

Specifications

*All made to order.

Dimensions

unit : mm



Dimension (mm)	PRL0816 (0603)	PRL1220 (0805)	PRL1632 (1206)	PRL3264 (2512)	RL3720W (0815)	RL7520W (0830)
L	1.6±0.2	2.0±0.2	3.2±0.2	6.4±0.2	3.75±0.30	7.50±0.30
W	0.8±0.2	1.25±0.2	1.6±0.2	3.2±0.2	2.00±0.20	2.00±0.20
A	—	—	—	—	0.40±0.20	0.40±0.20
B	0.2±0.1	0.35±0.15	0.45±0.15	0.9±0.15	0.40±0.20	0.40±0.20
T	0.4±0.1	0.5±0.1	0.5±0.1	0.5±0.1	0.5±0.2	0.5±0.2

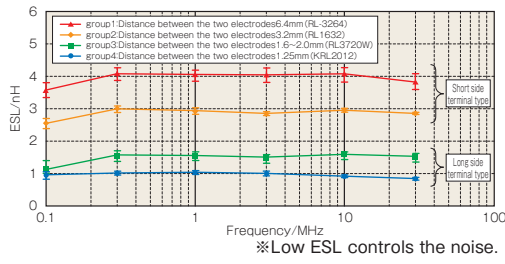
NOTE Obsolete: RL3720, RL3720W, RL7520W
Alternative P/N: PRL3720, PRL3720W, PRL7520W

Electrical characteristics

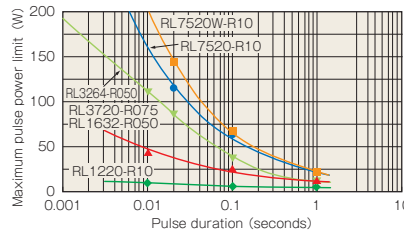
Series name	PRL0816		PRL1220			PRL1632		PRL3264			
Power	1/3W		2/3W			1W		2W			
E series offered	E-24		E-24			E-24		E-24			
	1mΩstep		1mΩstep (7m~10mΩ)			1mΩstep (5m~10mΩ)		1mΩstep (3m~10mΩ)			
Initial resistance value (Ω)	0.01~0.039	0.043~0.1	0.007~0.009	0.01~0.043	0.047~0.1	0.005~0.009	0.01~0.1	0.003~0.004	0.005~0.009	0.010~0.043	0.047~0.1
Resistance tolerance (%)	±0.5% (D)	○	—	—	○	—	○	—	—	—	○
	±1.0% (F)	○	○	—	○	○	○	—	—	○	○
	±2.0% (G)	—	—	○	○	○	○	—	○	○	○
	±5.0% (J)	—	—	—	—	—	—	○	—	—	—
Temperature coefficient of resistance (ppm/°C)	15mΩ or less 0~350ppm/°C 18m~27mΩ 0~200ppm/°C 33m~68mΩ ±100ppm/°C 75m~100mΩ ±50ppm/°C		7m~9mΩ 0~350ppm/°C 10m~18mΩ 0~200ppm/°C 20m~51mΩ ±100ppm/°C 56m~100mΩ ±50ppm/°C			9mΩ or less 0~350ppm/°C 10m~18mΩ 0~200ppm/°C 20m~51mΩ ±100ppm/°C 56m~100mΩ ±50ppm/°C					
Maximum voltage	$\sqrt{P \cdot R}$										
Operating temperature	-55°C~125°C										
Packaging	5,000pcs										

Series name	RL3720W				RL7520W			
power	1W				2W			
E series offered	E-24				E-24			
	1mΩstep (1m~10mΩ)				1mΩstep (1m~10mΩ)			
Initial resistance value (Ω)	0.001~0.004	0.005~0.009	0.010~0.091	0.1~1.0	0.001~0.004	0.005~0.009	0.010~0.091	0.1~0.47
Resistance tolerance (%)	±1.0% (F)	○	○	○	○	○	○	○
	±2.0% (G)	○	○	○	○	○	○	○
	±5.0% (J)	—	—	—	—	○	—	—
Temperature coefficient of resistance (ppm/°C)	0~+50 (Q)	—	—	—	○	—	—	○
	0~+100 (R)	—	—	—	○	—	—	○
	0~+200 (S)	—	○	○	○	—	—	○
	0~+350 (T)	○	○	○	—	—	○	—
	0~+420 (T)	—	—	—	—	—	○	—
0~+800 (T)	—	—	—	—	○	—	—	—
Maximum voltage	$\sqrt{P \cdot R}$							
Operating temperature	-55°C~125°C							
Packaging	4,000pcs							

ESL



Resistance to power pulse



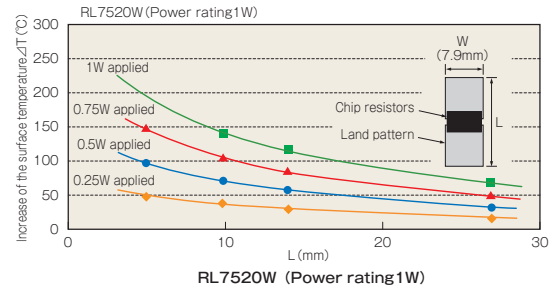
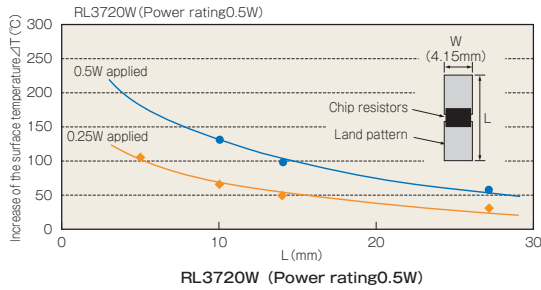
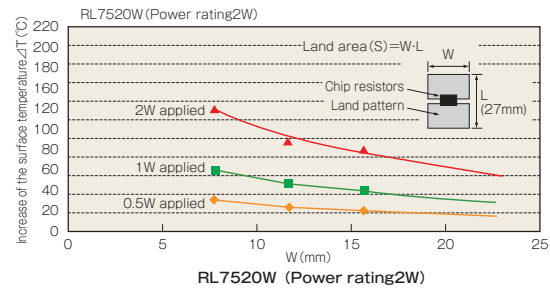
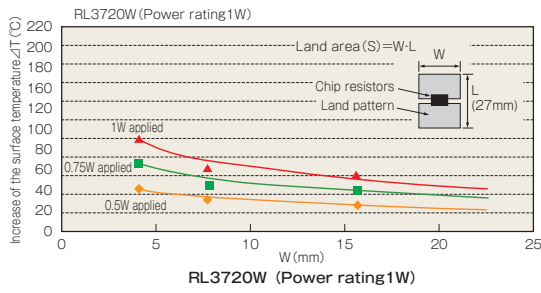
Test procedure

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.

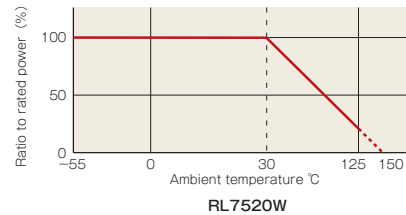
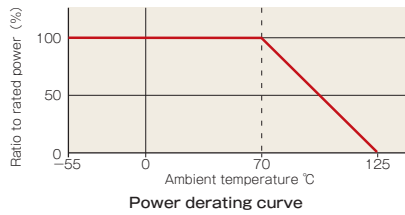
Surface temperature data

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.



Power derating characteristics



Part numbering system

PRL 1220 T-R10-F-(T5)

- Packaging: T5 (5000pcs)
- Resistance tolerance
- Resistance value
- Temperature coefficient of resistance
- Size
- Series code

RL 3720W T-R10-F

Current sensing surface mount resistors PRL/RL series