

RP series, high-power metal film chip resistors

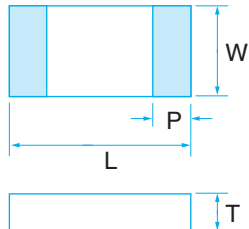


Resistors with high power in small size are realized as 1/3W for 2.0 x 1.25mm(0805) size, 1/5W for 1.6 x 0.8mm(0603) size and 1/6W for 1.0 x 0.5mm(0402 size). A tight resistance tolerance at $\pm 1\%$ is achieved.

RoHS compliant

SPECIFICATIONS

Mechanical



Dimension (Inch Size)	RP1005 (0402)	RP1608 (0603)	RP2012 (0805)
L	1.0 \pm 0.05	1.6 \pm 0.2	2.0 \pm 0.2
W	0.5 \pm 0.05	0.8 \pm 0.2	1.25 \pm 0.2
P	0.2 \pm 0.10	0.3 \pm 0.2	0.4 \pm 0.2
T	0.35 \pm 0.05	0.4 \pm 0.1	0.4 \pm 0.1

(unit : mm)

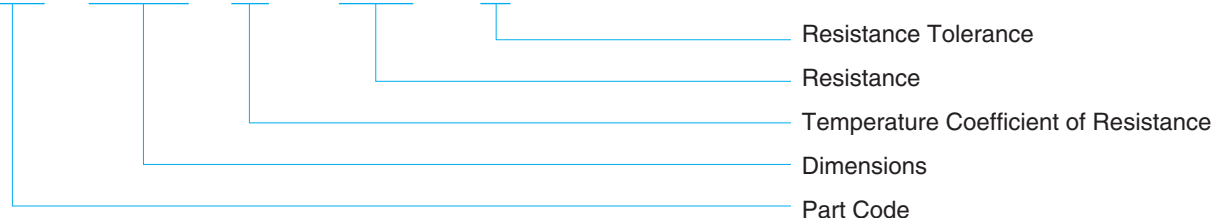
Electrical

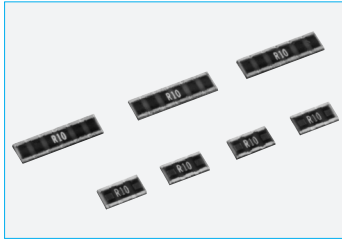
Type	RP1005	RP1608	RP2012	
Power	1/6W	1/5W	1/3W	
Tolerance %(code)	$\pm 1\%$ (F), $\pm 2\%$ (G), $\pm 5\%$ (J)		$\pm 1\%$ (F), $\pm 2\%$ (G), $\pm 5\%$ (J)	
Resistance Range (Ω)	0.1~47	0.1~68	0.1~10	11~100
TCR ppm / $^{\circ}$ C(code)	0 ~+200 (S)	0 ~+200 (S)	0 ~+350 (T)	0 ~+200 (S)
Resistance Value	E-24	E-24	E-24	
Max Operating Voltage for an element	$\sqrt{P \cdot R}$	$\sqrt{P \cdot R}$	$\sqrt{P \cdot R}$	
Operating Temp. Rating	-40~125 $^{\circ}$ C			
Package	10,000pcs/reel	5,000pcs/reel	5,000pcs/reel	

- Please contact us for specific resistance to surge voltage.
- Please contact us for 0.1 Ω or lower(TCR 0 - +350ppm/ $^{\circ}$ C) resistance value.

PART NUMBER

RP 1608 S - 102 - F





RL series, PRL series ^{NEW} low resistance value chip resistors with long-side electrodes for high-precision current detection.



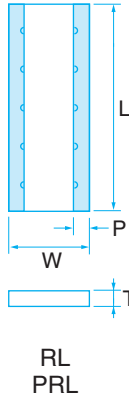
Excellent performance in resistance tolerance, noise, long term stability and heat dissipation. Our unique structure enables further miniaturization. This low resistance value chip resistor is useful in many current sensing applications. We offer 1/2, 1, 2 watt power handling thin film resistors.

^{NEW} PRL1632 are realized as 1W for 3.2×1.6mm(1206)

RoHS compliant

SPECIFICATIONS

Mechanical



Dimension (Inch Size)	RL3720 (1508)	RL3720W (1508)	RL7520W (3008)
L	3.75±0.30	3.75±0.30	7.50±0.30
W	2.00±0.20	2.00±0.20	2.00±0.20
P	0.40±0.20	0.40±0.20	0.40±0.20
T	0.40±0.10	0.40+0.15/-0.10	0.40+0.15/-0.10

(unit : mm)

Dimension (Inch Size)	PRL0816 (0603)	PRL1220 (0805)	PRL1632 (1206)	PRL3264 (2512)
L	1.6±0.2	2.0±0.2	3.2±0.2	6.4±0.2
W	0.8±0.2	1.25±0.2	1.6±0.2	3.2±0.2
P	0.225±0.15	0.35±0.15	0.45±0.15	0.9±0.15
T	0.5±0.15	0.5±0.15	0.5±0.15	0.5±0.15

(unit : mm)

Electrical

Type	RL3720			RL3720W				RL7520W		
Power	1/2W			1W				2W		
Tolerance %(code)	±1%(F) ±2%(G)			^{NEW} ±1%(F) ±2%(G)				±1%(F) ±2%(G)		
Resistance Range (Ω)	0.01~0.018	0.022~0.068	0.1~2.2	0.001~0.004	0.005~0.009	0.010~0.091	0.1~1.0	0.001~0.009	0.010~0.091	0.1~0.47
TCR ppm /°C(code)	0~350 (T)	0~200 (S)	0~100 (R)	0~350 (T)	0~200 (S)	0~200 (S)	0~50(Q) 0~100(R)	0~200 (S)	0~100 (R)	0~50(Q) 0~100(R)
Resistance Value	E-6			—				E-24		
Package	4000pcs/reel									

Type	PRL0816		PRL1220			PRL1632		PRL3264			
Power	1/3W		2/3W			1W		2W			
Tolerance %(code)	±1%(F)	±0.5%(D) ±1%(F)	±2%(G)	±1%(F) ±2%(G)	±0.5%(D) ±1%(F)±2%(G)	±1%(F) ±2%(G)	±0.5%(D) ±1%(F)±2%(G)	±5%(J)	±2%(G)	±1%(F) ±2%(G)	±0.5%(D) ±1%(F)±2%(G)
Resistance Range (Ω)	10m~39m,25m	43m~100m,50m	7m~9m	10m~43m	47m~100m	5m~9m	10m~100m,25m	3m~4m	5m~9m	10m~43mΩ,25m	47m~100m,50m
TCR ppm /°C(code)	15mΩ≥ : 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≥ : 0~350ppm/°C 10m~18mΩ : 0~200ppm/°C 20m~51mΩ : ±100ppm/°C 56m~100mΩ : ±50ppm/°C			
Resistance Value	E-24										
Package	1,000pcs/reel(T1) 5,000pcs/reel(T5)										

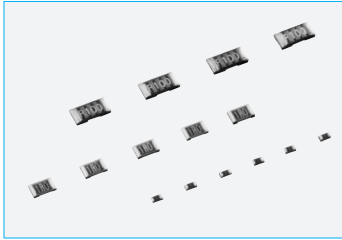
· PRL series with resistance value more than 100m ohm are also available.

PART NUMBER

RL 3720W T - R10 - F - (T1) — Taping Quantity Unit:PRL:T1(1000pcs) T5(5000pcs)

Resistance Value:RLseries:3 digits, PRL series :4 digits

Temperature Coefficient of Resistance:To be added as for RLseries



RL series, low resistance value chip resistors with short-side electrodes for high-precision current detection.



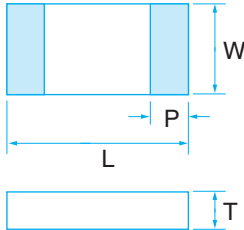
These thin film low resistance value chip resistors are offered in international standard sizes. They exhibit excellent performance in resistance, noise performance, surface heat distribution and a lower surface temperature. Useful in many current sensing applications. Available in 1/10, 1/8 and 1/4 watt package.

NEW Smallest in the market 0201 low resistance value chip resistor.

RoHS compliant

SPECIFICATIONS

Mechanical



Dimension (Inch Size)	RL0603 (0201)	RL0510 (0402)	RL0816 (0603)	RL1220 (0805)
L	0.60±0.05	1.00±0.10	1.60±0.10	2.00±0.20
W	0.30±0.05	0.50±0.10	0.80±0.10	1.25±0.20
P	0.12±0.05	0.20±0.10	0.20±0.15	0.40±0.20
T	0.23±0.05	0.35±0.10	0.45±0.10	0.40±0.20

(unit : mm)

Equivalent circuit



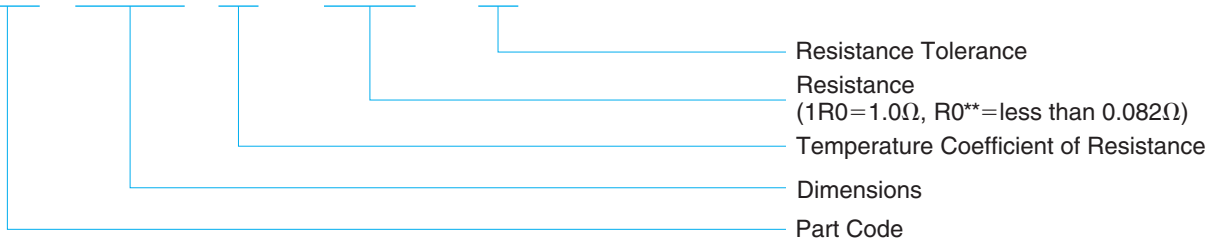
Electrical

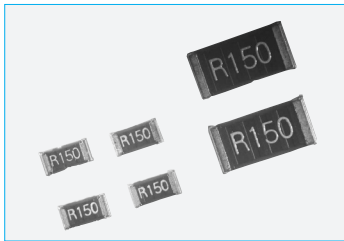
Type	RL0603	RL0510	RL0816		RL1220		
Power	1/10W	1/8W	1/8W		1/4W		
Tolerance %(code)	±2%(G) ±5%(J)	±1%(F) ±2%(G)	±1%(F) ±2%(G)	±1%(F)	±1%(F) ±2%(G)		
Resistance Range(Ω)	0.1~4.7	0.05~4.7	0.02~0.091	0.1~6.8	0.01~0.039	0.043~0.091	0.1~10
TCR ppm /°C(code)	0~200 (S)		0~200 (S)	0~100 (R)	0~350 (T)	0~200 (S)	0~100 (R)
Resistance Value	E-24						
Package	10,000pcs/reel			5,000pcs/reel			

- Please contact us for tolerance ±1% in RL0603.
- Please contact us for tolerance ±0.5% for 0.1Ω or more in RL0816, as well as ±0.5% for 0.047Ω or more in RL1220.

PART NUMBER

RL 1220 S - 1R0 - F





RL series, low resistance value chip resistors with short-side electrodes for high-precision current detection.

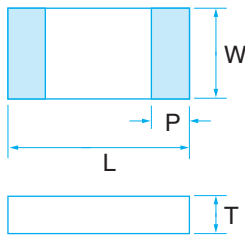


These low resistance value chip resistors are offered in international standard sizes. They exhibit excellent performance in resistance, noise performance, surface heat distribution and a lower surface temperature. Useful in many current sensing applications. Available in 1/2 and 1 watt package.

RoHS compliant

SPECIFICATIONS

Mechanical



Dimension (Inch Size)	RL1632	RL3264	RL1632H	RL-1632-6 <small>NEW</small>	RL-3264-6	RL-3264-9 <small>NEW</small>
L	3.20±0.20	6.40±0.20	3.20±0.20	3.20±0.33	6.50±0.33	6.50±0.33
W	1.60±0.20	3.20±0.20	1.60±0.20	1.60±0.33	3.20±0.20	3.20±0.20
P	1.00±0.15	2.00±0.15	0.50±0.15	0.95±0.20	2.50±0.15(1mΩ) 1.90±0.15(2mΩ) 1.0±0.15(≥3mΩ)	2.50±0.15(1mΩ) 1.90±0.15(2,3mΩ)
T	0.50±0.15	0.50±0.15	0.80±0.15	0.50±0.15	0.70±0.15(1mΩ) 0.65±0.15(2mΩ) 0.95±0.15(3mΩ) 0.80±0.15(≥4mΩ)	0.70±0.15(1mΩ) 0.65±0.15(2mΩ) 0.50±0.15(3mΩ)

(unit : mm)

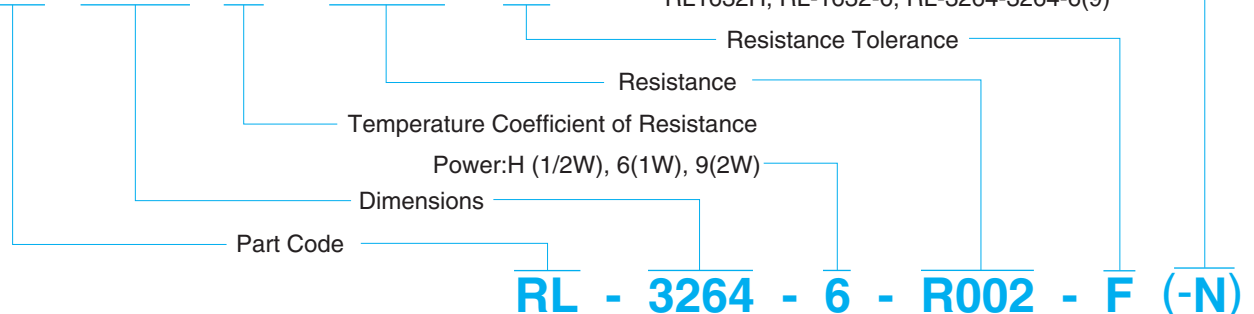
Electrical

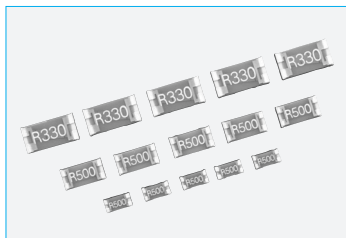
Type	RL1632				RL3264				RL1632H <small>Fixed metal foil</small>	RL-1632-6 <small>New Fixed metal foil</small>	RL-3264-6 <small>Fixed metal foil</small>				RL-3264-9 <small>New Fixed metal foil</small>		
Power	1/2W				1W				1/2W	1W	1W				2W		
Tolerance %(code)	±2%(G)		±1%(F) ±2%(G)		±2%(G)		±1%(F) ±2%(G)		±1%(F) ±2%(G) ±5%(J)	±5%(J)	±5%(J)	±1%(F) ±5%(J)	±1%(F) ±5%(J)	±1%(F) ±2%(G) ±5%(J)			
Resistance Range (Ω)	0.01~0.015	0.018~0.022	0.027	0.033~0.047	0.051~0.07	0.01~0.015	0.018~0.022	0.027	0.033~0.047	0.056~0.07	5m~0.15	1~4m	1,2m	3,4,5m	5.1~10m	11~47m	1,2,3m
TCR ppm/°C(code)	0~+500 (T)	0~+350 (T)	0~+200 (S)	±100 (R)	0~+500 (T)	0~+350 (T)	0~+200 (S)	±100 (R)	±100(10mΩ≥) ±50(10mΩ<)	±100	±100	±100	±100	±100	±50	±200(1mΩ) ±100(2,3mΩ)	
Resistance Value	E-24				E-12				1mΩ step (9mΩ≥) E-24 (10mΩ≤)	1mΩ step	—	E-24		—			
Package	5,000pcs/reel				5,000pcs/reel				2,000pcs/reel								

PART NUMBER

RL 1632 S - R033 - F

Given to the RoHS compliant products of RL1632H, RL-1632-6, RL-3264-3264-6(9)





High-precision current-detection elements

RL·L series: four-terminal type

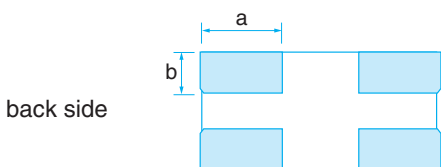
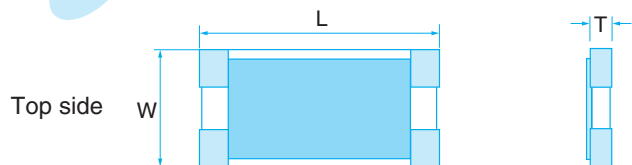


Newly released: A four-terminal structure with separate voltage- and current-terminals assures high-precision TCR of 50ppm/°C and 0.5% tolerance.

RoHS compliant

SPECIFICATIONS

Mechanical



Dimension (Inch Size)	RL1632L4 (1206)	RL2550L4 (2010)	RL3264L4 (2512)
L	3.2±0.2	5.0±0.2	6.4±0.2
W	1.6±0.2	2.5±0.2	3.2±0.2
T	0.5±0.15	0.5±0.15	0.5±0.15
a	1.0±0.2	1.7±0.2	2.1±0.2
b	0.55±0.2	0.9±0.2	1.2±0.2

(unit : mm)

Equivalent circuit



V=Voltage Terminal
I=Current Terminal

Electrical

Type	RL1632L4	RL2550L4	RL3264L4		
Power	1/2W	3/4W	1W		
Tolerance %(code)	±0.5%(D) ±1%(F)				
Resistance Range (Ω)	10~500m		3~5m	6~500m	
TCR ppm /°C(code)	±50ppm/°C		±100ppm/°C	±50ppm/°C	
Terminal Resistance (Ω)	10~47m	50~500m	3~8m	10~47m	50~500m
	5 M or less	20 M or less	1 M or less	5 M or less	20 M or less
Resistance Value (Ω)	E-12 series 50, 500m		E-12 series 3, 4, 5, 6, 7, 8, 50, 500m		
Package	5,000pcs/reel				

· Contact us for even lower resistance values.

PART NUMBER

RL 1632 L4 - R033 - F

