

# RP series, RPH series, high-power metal film chip resistors



Resistors with high power in small size are realized as 1/3W for 2.0×1.25mm(0805) size, 1/5W for 1.6×0.8mm(0603) size and 1/6W for 1.0×0.5mm(0402 size).

A tight resistance tolerance at ±1% is achieved.

**NEW** RPH1608 resistors with more high power are realized as 1/4W for 1.6×0.8mm(0603) size.

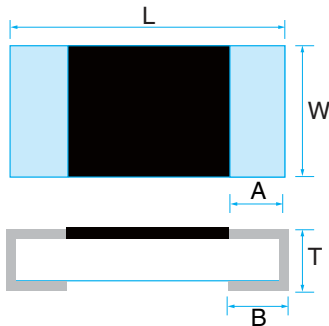
RoHS compliant

Completely lead free



## SPECIFICATIONS

### Mechanical



| Dimension<br>(Inch Size) | RP1005<br>(0402)         |                                               | RP1608<br>RPH1608 (0603) | RP2012<br>(0805) |
|--------------------------|--------------------------|-----------------------------------------------|--------------------------|------------------|
|                          | Single side<br>structure | Double sides structure<br>$R \leq 0.16\Omega$ |                          |                  |
| L                        | $1.0 \pm 0.05$           |                                               | $1.6 \pm 0.20$           | $2.0 \pm 0.2$    |
| W                        | $0.5 \pm 0.05$           |                                               | $0.8 \pm 0.10$           | $1.25 \pm 0.2$   |
| A                        | $0.15 \pm 0.10$          |                                               | $0.2 \pm 0.15$           | $0.4 \pm 0.2$    |
| B                        | $0.25 \pm 0.10$          | $0.15 \pm 0.10$                               | $0.25 \pm 0.20$          | $0.4 \pm 0.2$    |
| T                        | $0.35 \pm 0.10$          | $0.35 \pm 0.15 / -0.10$                       | $0.45 \pm 0.10$          | $0.4 \pm 0.1$    |

(unit : mm)

### Electrical

| Type                                 | RP1005                 | RP1608                 | RPH1608 <b>NEW</b>     | RP2012                 |             |
|--------------------------------------|------------------------|------------------------|------------------------|------------------------|-------------|
| Power                                | 1/6W                   | 1/5W                   | 1/4W                   | 1/3W                   |             |
| Tolerance %(code)                    | ±1 (F), ±2 (G), ±5 (J) | ±1 (F), ±2 (G), ±5 (J) | ±1 (F), ±2 (G), ±5 (J) | ±1 (F), ±2 (G), ±5 (J) |             |
| Resistance Range (Ω)                 | 0.1~47                 | 0.1~68                 | 0.01~0.082             | 0.1~10                 | 11~100      |
| TCR ppm /°C(code)                    | 0 ~+200 (S)            | 0 ~+200 (S)            | 0 ~+350 (T)            | 0 ~+350 (T)            | 0 ~+200 (S) |
| Resistance Value                     | E-24                   | E-24                   | E-12                   | 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°C              | -40~125°C              |                        | -40~125°C              |             |
| Package                              | 10,000pcs/reel         | 5,000pcs/reel          | 5,000pcs/reel          | 5,000pcs/reel          |             |

- Please contact us for specific resistance to surge voltage.
- Please contact us for 0.1Ω or lower(TCR 0 ~ +350ppm/°C) resistance value in RP1005,RP1608,RP2012.



## PART NUMBER

**RP 1608 S - 102 - F**

- Resistance Tolerance
- Resistance
- Temperature Coefficient of Resistance
- Dimensions
- Part Code



## RL series, PRL series <sup>NEW</sup> 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.

<sup>NEW</sup> PRL1632 are realized as 1W for 3.2×1.6mm(1206)

Very low resistance and low ELS, supplying ripple free signals.

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       |
| A                     | 0.40±0.20     | 0.40±0.20       | 0.40±0.20       |
| B                     | 0.40±0.20     | 0.40±0.20       | 0.40±0.20       |
| T                     | 0.40±0.10     | 0.45+0.15/-0.10 | 0.45+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        |
| B                     | 0.2±0.1        | 0.35±0.15      | 0.45±0.15      | 0.9±0.15       |
| T                     | 0.4±0.1        | 0.5±0.1        | 0.5±0.1        | 0.5±0.1        |

(unit : mm)

#### Electrical

| Type                 | RL3720           |                      |          | RL3720W          |                      |             |                                 | RL7520W              |                      |                      |                                 |
|----------------------|------------------|----------------------|----------|------------------|----------------------|-------------|---------------------------------|----------------------|----------------------|----------------------|---------------------------------|
| Power                | 1/2W             |                      |          | 1W               |                      |             |                                 | 2W                   |                      |                      |                                 |
| Tolerance %(code)    | ±1%(F)<br>±2%(G) |                      |          | ±1%(F)<br>±2%(G) |                      |             |                                 | ±1%(F)<br>±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                         | 0.001~0.004          | 0.005~0.009          | 0.010~0.091          | 0.1~0.47                        |
| TCR ppm /°C(code)    | 0~350(T)         | 0~200(S)<br>0~350(T) | 0~100(R) | 0~350(T)         | 0~200(S)<br>0~350(T) |             | 0~50(Q)<br>0~100(R)<br>0~200(S) | 0~200(S)<br>0~800(T) | 0~200(S)<br>0~420(T) | 0~100(R)<br>0~350(T) | 0~50(Q)<br>0~100(R)<br>0~200(S) |
| Resistance Value     | E-6              |                      |          | —                |                      | E-24        |                                 | —                    |                      | E-24                 |                                 |
| Package              | 4000pcs/reel     |                      |          |                  |                      |             |                                 |                      |                      |                      |                                 |

| Type                 | PRL0816                                                                                          |                    | PRL1220                                                                                          |                  |                          | PRL1632          |                                                                                                 | PRL3264 |        |                  |                          |
|----------------------|--------------------------------------------------------------------------------------------------|--------------------|--------------------------------------------------------------------------------------------------|------------------|--------------------------|------------------|-------------------------------------------------------------------------------------------------|---------|--------|------------------|--------------------------|
| Power                | 1/3W                                                                                             |                    | 2/3W                                                                                             |                  |                          | 1W               |                                                                                                 | 2W      |        |                  |                          |
| Tolerance %(code)    | ±1%(F)                                                                                           | ±0.5%(D)<br>±1%(F) | ±2%(G)                                                                                           | ±1%(F)<br>±2%(G) | ±0.5%(D)<br>±1%(F)±2%(G) | ±1%(F)<br>±2%(G) | ±0.5%(D)<br>±1%(F)±2%(G)                                                                        | ±5%(J)  | ±2%(G) | ±1%(F)<br>±2%(G) | ±0.5%(D)<br>±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~43m, 25m     | 47m~100m, 50m            |
| TCR ppm /°C(code)    | 15mΩ ≥ : 0~350ppm/°C<br>18m~27mΩ : 0~200ppm/°C<br>33m~68mΩ : ±100ppm/°C<br>75m~100mΩ : ±50ppm/°C |                    | 7m~9mΩ : 0~350ppm/°C<br>10m~18mΩ : 0~200ppm/°C<br>20m~51mΩ : ±100ppm/°C<br>56m~100mΩ : ±50ppm/°C |                  |                          |                  | 9mΩ ≥ : 0~350ppm/°C<br>10m~18mΩ : 0~200ppm/°C<br>20m~51mΩ : ±100ppm/°C<br>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 Tolerance

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

Temperature Coefficient of Resistance: To be added as for RL series

Dimensions

Part Code



## 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, 1/4, 1/2 and 1 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)         |                                             |
|----------------------|------------------------|-----------------------|--------------------------------------------|-----------------------|---------------------------------------------|
|                      |                        | Single side structure | Double sides structure $R \leq 0.20\Omega$ | Single side structure | Double sides structure $R \leq 0.082\Omega$ |
| L                    | $0.60 \pm 0.05$        | $1.00 \pm 0.05$       |                                            | $1.60 \pm 0.10$       |                                             |
| W                    | $0.30 \pm 0.03$        | $0.50 \pm 0.05$       |                                            | $0.80 \pm 0.10$       |                                             |
| A                    | $0.12 \pm 0.05$        | $0.15 \pm 0.10$       |                                            | $0.20 \pm 0.15$       |                                             |
| B                    | $0.15 \pm 0.05$        | $0.25 \pm 0.10$       | $0.15 \pm 0.10$                            | $0.25 \pm 0.20$       | $0.20 \pm 0.15$                             |
| T                    | $0.28 + 0.03 / - 0.05$ | $0.35 \pm 0.10$       | $0.35 + 0.15 / - 0.10$                     | $0.45 \pm 0.10$       | $0.45 + 0.15 / - 0.10$                      |

(unit : mm)

| Dimension(Inch Size) | RL1220 (0805)         |  | RL1632 (1206)                               |  | RL3264 (2512)   |  |
|----------------------|-----------------------|--|---------------------------------------------|--|-----------------|--|
|                      | Single side structure |  | Double sides structure $R \leq 0.082\Omega$ |  |                 |  |
| L                    | $2.00 \pm 0.20$       |  | $3.20 \pm 0.20$                             |  | $6.40 \pm 0.20$ |  |
| W                    | $1.25 \pm 0.20$       |  | $1.60 \pm 0.20$                             |  | $3.20 \pm 0.20$ |  |
| A                    | $0.40 \pm 0.20$       |  | —                                           |  | —               |  |
| B                    | $0.40 \pm 0.20$       |  | $1.00 \pm 0.15$                             |  | $2.00 \pm 0.15$ |  |
| T                    | $0.40 \pm 0.10$       |  | $0.50 \pm 0.15$                             |  | $0.50 \pm 0.15$ |  |

(unit : mm)

| Type                         | RL0603                         | RL0510                         | RL0816                         |                      | RL1220                         |                      |                      |
|------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------|--------------------------------|----------------------|----------------------|
| Power                        | 1/10W                          | 1/8W                           | 1/8W                           |                      | 1/4W                           |                      |                      |
| Tolerance %(code)            | $\pm 2\%$ (G)<br>$\pm 5\%$ (J) | $\pm 1\%$ (F)<br>$\pm 2\%$ (G) | $\pm 1\%$ (F)<br>$\pm 2\%$ (G) | $\pm 1\%$ (F)        | $\pm 1\%$ (F)<br>$\pm 2\%$ (G) |                      |                      |
| Resistance Range( $\Omega$ ) | 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 / $^{\circ}$ C(code) | 0~200(S)                       |                                | 0~200(S)                       | 0~100(R)<br>0~200(S) | 0~350(T)                       | 0~200(S)<br>0~350(T) | 0~100(R)<br>0~200(S) |
| Resistance Value             | E-24                           |                                |                                |                      |                                |                      |                      |
| Package                      | 10,000pcs/reel                 |                                |                                | 5,000pcs/reel        |                                |                      |                      |

· Please contact us for tolerance  $\pm 1\%$  in RL0603.

· Please contact us for tolerance  $\pm 0.5\%$  for 0.1 $\Omega$  or more in RL0816, as well as  $\pm 0.5\%$  for 0.047 $\Omega$  or more in RL1220.

| Type                | RL1632        |               |                  |             |                      |          | RL3264        |               |                  |                           |
|---------------------|---------------|---------------|------------------|-------------|----------------------|----------|---------------|---------------|------------------|---------------------------|
| Power               | 1/2W          |               |                  |             |                      |          | 1W            |               |                  |                           |
| Tolerance %(code)   | ±2%(G)        |               | ±1%(F)<br>±2%(G) |             | ±0.5%(D)<br>±1.0%(F) |          | ±2%(G)        |               | ±1%(F)<br>±2%(G) |                           |
| 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 | 0.01~0.015    | 0.018~0.022   | 0.027            | 0.033~0.047<br>0.056~0.47 |
| TCR ppm /°C(code)   | 0~+500<br>(T) | 0~+350<br>(T) | 0~+200<br>(S)    | ±100<br>(R) |                      |          | 0~+500<br>(T) | 0~+350<br>(T) | 0~+200<br>(S)    | ±100<br>(R)               |
| Resistance Value    | E-24, 0.05Ω   |               |                  |             |                      |          | E-12          |               |                  |                           |
| Package             | 5,000pcs/reel |               |                  |             |                      |          | 5,000pcs/reel |               |                  |                           |



### PART NUMBER

RL 1220 S - 1R0 - F

Resistance Tolerance

Resistance  
(1R0=1.0 $\Omega$ , R0\*\*=less than 0.091 $\Omega$ )  
RL1632 series and RL3264 series :  
4 digits

Temperature Coefficient of Resistance

Dimensions

Part Code



**Fixed metal foil** *Foil type RL series,  
low resistance value chip resistors  
for high-precision current detection.*



Operations temperature, -55~170°C high stability.  
Tight resistance tolerance of  $\pm 1\%$ , and TCR of  $\pm 50\text{ppm}$ .

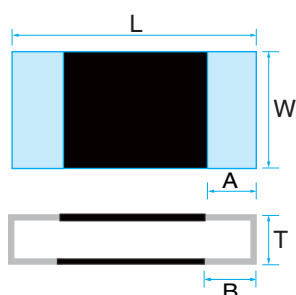


## SPECIFICATIONS

RoHS compliant

Completely lead free

### Mechanical



| Dimension<br>(Inch Size) | RL1632H<br>(1206)                                                                                       | RL-3264-6<br>(2512)                                            | RL-3264-6C<br>(2512)                                                     | RL-3264-9V<br>(2512)                                                                                   |
|--------------------------|---------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| L                        | 3.20 $\pm$ 0.33(1-4m $\Omega$ )<br>3.20 $\pm$ 0.20(5-150m $\Omega$ )                                    | 6.35 $\pm$ 0.25                                                | 6.35 $\pm$ 0.25                                                          | 6.35 $\pm$ 0.25                                                                                        |
| W                        | 1.60 $\pm$ 0.33(1-4m $\Omega$ )<br>1.60 $\pm$ 0.20(5-150m $\Omega$ )                                    | 3.20 $\pm$ 0.20                                                | 3.20 $\pm$ 0.20                                                          | 3.18 $\pm$ 0.25                                                                                        |
| A                        | —                                                                                                       | 2.50 $\pm$ 0.15(1m $\Omega$ )<br>1.90 $\pm$ 0.15(2m $\Omega$ ) | 1.00 $\pm$ 0.25( $\geq$ 6m $\Omega$ )                                    | 2.21 $\pm$ 0.25(1-4m $\Omega$ )<br>1.19 $\pm$ 0.25(5-6m $\Omega$ )<br>0.76 $\pm$ 0.25(7-11m $\Omega$ ) |
| B                        | 1.25 $\pm$ 0.20(1m $\Omega$ )<br>0.50 $\pm$ 0.20(2-4m $\Omega$ )<br>0.50 $\pm$ 0.15(5-150m $\Omega$ )   | —                                                              | —                                                                        | —                                                                                                      |
| T                        | 0.65 $\pm$ 0.15(1-2m $\Omega$ )<br>0.50 $\pm$ 0.15(3-4m $\Omega$ )<br>0.80 $\pm$ 0.15(5-150m $\Omega$ ) | 0.70 $\pm$ 0.15(1m $\Omega$ )<br>0.65 $\pm$ 0.15(2m $\Omega$ ) | 1.05 $\pm$ 0.15(3-5m $\Omega$ )<br>0.80 $\pm$ 0.15( $\geq$ 6m $\Omega$ ) | 1.30 $\pm$ 0.25(1m $\Omega$ )<br>1.20 $\pm$ 0.25(2-4m $\Omega$ )<br>1.00 $\pm$ 0.25(5-11m $\Omega$ )   |

(unit : mm)

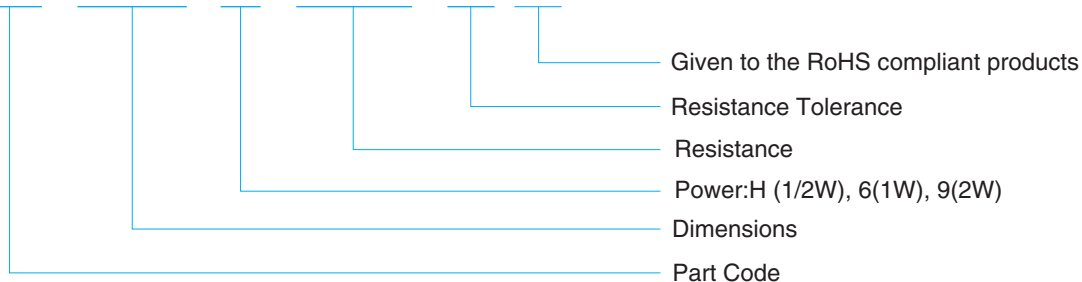
### Electrical

| Type                          | RL1632H          |                                |                                |           |          | RL-3264-6                      |           | RL-3264-6C                     |        | RL-3264-9V                     |           |          |
|-------------------------------|------------------|--------------------------------|--------------------------------|-----------|----------|--------------------------------|-----------|--------------------------------|--------|--------------------------------|-----------|----------|
| Power                         | 1/2W             |                                |                                |           |          | 1W                             |           | 1W                             |        | 2W                             |           |          |
| Tolerance %(code)             | $\pm 5\%$ (J)    | $\pm 2\%$ (G)<br>$\pm 5\%$ (J) | $\pm 1\%$ (F)<br>$\pm 5\%$ (J) |           |          | $\pm 2\%$ (G)<br>$\pm 5\%$ (J) |           | $\pm 1\%$ (F)<br>$\pm 5\%$ (J) |        | $\pm 1\%$ (F)<br>$\pm 5\%$ (J) |           |          |
| Resistance Range(m $\Omega$ ) | 1                | 2                              | 3~4                            | 5~10      | 11~150   | 1                              | 2         | 3~10                           | 11~100 | 1~2                            | 3~4       | 5~11     |
| TCR ppm /°C                   | $\pm 275$        |                                | $\pm 150$                      | $\pm 100$ | $\pm 50$ | $\pm 200$                      | $\pm 100$ | $\pm 50$                       |        | $\pm 275$                      | $\pm 150$ | $\pm 50$ |
| Resistance Value              | 1m $\Omega$ step |                                |                                |           | E-24     | 1m $\Omega$ step               |           |                                | E-24   | 1m $\Omega$ step               |           |          |
| Package                       | 2,000pcs/reel    |                                |                                |           |          | 2,000pcs/reel                  |           |                                |        | 2,000pcs/reel                  |           |          |
| Operating Temp. Range         | -55~170°C        |                                |                                |           |          | -55~170°C                      |           |                                |        | -55~170°C                      |           |          |



## PART NUMBER

**RL 3264 - 6 - R002 - F N**





## Precision current sensing low resistance chip resistors Metal foil, long-side terminal/ short-side terminal, face down. KRL series



Two types are available: for high temperature application (up to 170°C) and for low thermal emf application. Excellent TCRs:  $\pm 150\text{ppm}/^\circ\text{C}$  for 1m $\Omega$ ,  $\pm 100\text{ppm}/^\circ\text{C}$  for 2m $\Omega$ ,  $\pm 50\text{ppm}/^\circ\text{C}$  for 3m $\Omega$ . Face down mounting offers accurate sensing. Depending on customers' applications, we offer long-side terminal type and short-side terminal type ranging from 1/3W to 5W power rating. Protective coating used is halogen free showing our commitment to environment.

RoHS compliant

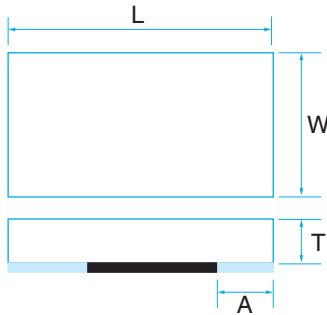
Completely lead free



### SPECIFICATIONS

#### Mechanical

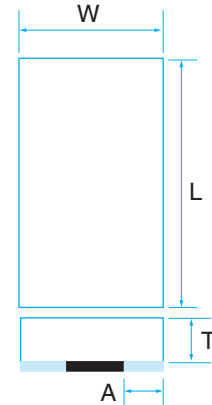
##### Short-side terminal



| Dimensions (mm)        | KRL1220         | KRL1632         | KRL3264         |
|------------------------|-----------------|-----------------|-----------------|
| L                      | $2.0 \pm 0.20$  | $3.2 \pm 0.20$  | $6.3 \pm 0.20$  |
| W                      | $1.25 \pm 0.20$ | $1.6 \pm 0.20$  | $3.1 \pm 0.20$  |
| T                      | $0.5 \pm 0.20$  | $0.5 \pm 0.20$  | $0.5 \pm 0.20$  |
| A (5.0~7.0m $\Omega$ ) | $0.4 \pm 0.20$  | $1.10 \pm 0.20$ | $1.90 \pm 0.20$ |
| A (8.0m $\Omega$ ~)    |                 | $0.4 \pm 0.20$  | $1.0 \pm 0.20$  |

#### Mechanical

##### Long-side terminal



| Dimensions (mm)   | KRL2012         | KRL3216         | KRL6432         | KRL7638         | KRL9045         | KRL11050        |
|-------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| L                 | $2.0 \pm 0.20$  | $3.2 \pm 0.20$  | $6.3 \pm 0.20$  | $7.6 \pm 0.20$  | $8.9 \pm 0.20$  | $11.0 \pm 0.20$ |
| W                 | $1.25 \pm 0.20$ | $1.6 \pm 0.20$  | $3.1 \pm 0.20$  | $3.8 \pm 0.20$  | $4.5 \pm 0.20$  | $5.0 \pm 0.20$  |
| T                 | $0.5 \pm 0.20$  | $0.5 \pm 0.20$  | $0.5 \pm 0.20$  | $0.5 \pm 0.20$  | $0.5 \pm 0.20$  | $0.5 \pm 0.20$  |
| A (1m $\Omega$ )  | $0.55 \pm 0.20$ | $0.60 \pm 0.20$ | $1.20 \pm 0.20$ | $1.35 \pm 0.20$ | $1.60 \pm 0.20$ | $1.80 \pm 0.20$ |
| A (2m $\Omega$ )  | $0.40 \pm 0.20$ | $0.40 \pm 0.20$ | $0.50 \pm 0.20$ | $0.60 \pm 0.20$ | $0.70 \pm 0.20$ | $0.80 \pm 0.20$ |
| A (3m $\Omega$ ~) | $0.30 \pm 0.20$ | $0.30 \pm 0.20$ |                 |                 |                 |                 |

#### Electrical

| Type                  | KRL1220                            | KRL1632 | KRL3264 |
|-----------------------|------------------------------------|---------|---------|
| Power                 | 0.3W                               | 0.5W    | 1.0W    |
| Resistance Range(Ω)   | 10m~100m                           | 5m~100m |         |
| Tolerance %<br>(code) | 5~9m : ±2.0 (G)<br>10m~ : ±1.0 (F) |         |         |
| TCR ppm /°C           | 5~9m : ±100<br>10m~ : ±50          |         |         |
| Operating Temp. Range | C : -55~170°C<br>M : -55~155°C     |         |         |

· Contact our sales office for wrap around terminal ERL series.

#### Electrical

| Type                  | KRL2012                                          | KRL3216 | KRL6432 | KRL7638 | KRL9045 | KRL11050 |
|-----------------------|--------------------------------------------------|---------|---------|---------|---------|----------|
| Power                 | 0.66W                                            | 1.0W    | 2.0W    | 3.0W    | 4.0W    | 5.0W     |
| Resistance Range(Ω)   | 1m~50m                                           |         | 1m~100m |         |         |          |
| Tolerance %<br>(code) | 1m : ±5.0 (J)<br>2m : ±2.0 (G)<br>3m~ : ±1.0 (F) |         |         |         |         |          |
| TCR ppm /°C           | 1m : ±150<br>2m : ±100<br>3m~ : ±50              |         |         |         |         |          |
| Operating Temp. Range | C : -55~170°C<br>M : -55~155°C                   |         |         |         |         |          |



### PART NUMBER

## KRL 6432 - C - R010 - F - T1

Package  
(T1:1000pcs/reel, T5:5000pcs/reel)

Resistance Tolerance

Resistance Value

Operating Temperature :  
C (high temperature application)  
M (low thermal emf application)

Dimensions

Part Code



# 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         |
| 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         |
| T                     | 0.5±0.15        | 0.5±0.15        | 0.5±0.15        |

(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<br>50, 500m              |              | E-12 series<br>3, 4, 5, 6, 7, 8, 50, 500m |             |              |
| Package                 | 1,000(T1)pcs/reel, 5,000(T5)pcs/reel |              |                                           |             |              |

· Contact us for even lower resistance values.

### PART NUMBER

**RL 1632 L4 - R033 - F - T1(T5)**

