

Type LR Series

Key Features

- Superior quality metal film resistors with 1% tolerance and temperature coefficients down to 50 ppm. 3 case sizes are available in 0.25, 0.6, 0.75W. The LR1L series is a low ohmic value range from 0.1 to 0.82 ohm. Ideally suited where low resistance and small size are required.
- Metal film resistors have excellent stability under load and severe environmental conditions. They exhibit very low noise current and voltage coefficients. They are available in a wide range of resistance values and are suitable for general purpose and precision applications.



The resistive element comprises a thin film of nickel-chrome alloy evaporated onto a high thermal conductivity ceramic element. Metal end caps are force fitted to the element prior to spiralling to value. Tinned copper lead wires are welded to the end caps and the components are then coated. One coat of phenolic resin is followed by three coats of epoxy resin. All resistors are tested for value and tolerance.

Characteristics - Electrical

| | LR0204 | | LR1L | LR1 | | | LR2 | LR100 | LR200 | | |
|---------------------------------------|-------------|-------|-------|-------|------|-------|-------|-----------|-----------|-----|---|
| Rated Power @ 70°C (W) | 0.25 | | 0.5 | 0.6 | | | 0.75 | 1 | 2 | | |
| Resistance Range (Ohms) | Min | 1R0 | 10R | R10 | 1R0 | 10R | 1M1 | 1R0 | 10R | 10R | |
| | Max | 9R1 | 1M0 | R82 | 9R1 | 1M0 | 10M | 1M0 | 1M0 | 1M0 | |
| Tolerance (%) | 1 | 1 | 5 | 0.5 | 1 | 2 | 0.5 | 1 | 5 | 1 | 5 |
| Code Letter | F | F | J | D | F | G | D | F | J | F | J |
| Temp. Coefficient (ppm/°C) | ± 100 | ± 100 | ± 200 | ± 100 | ± 50 | ± 100 | ± 100 | 25/50/100 | 25/50/100 | | |
| Selection Series | E24 | E24 | E12 | E24 | E24 | E24 | E24 | E24 | E24 | | |
| On Request | | E96 | | | E96 | | E96 | E96 | E96 | | |
| Limiting Element Voltage | 200 | | 350 | 350 | | | 350 | 500 | 500 | | |
| Max Permitted Element Voltage | 200 | | 350 | 350 | | | 350 | 500 | 500 | | |
| Max Overload Voltage | 400 | | 500 | 700 | | | 700 | 1000 | 1000 | | |
| Max Intermittent Overload Voltage | 500 | | 750 | 750 | | | 750 | 1000 | 1000 | | |
| Operating Temp. Range (°C) | -55 to +155 | | | | | | | | | | |
| Climatic Category | 55/155/56 | | | | | | | | | | |
| Dielectric Strength (V) | 500 | 700 | 700 | 700 | 700 | 700 | 700 | 700 | 700 | | |
| Insulation Resistance Min Dry (Mohms) | 1000 | | | | | | | | | | |

Type LR Series

Dimensions



| Style | L* | D | d Nom | l |
|--------|------------|------------|-------|-----------|
| LR0204 | 3.5 +/-0.2 | 2.0 max | 0.45 | 28 +/-3.0 |
| LR1 | 6.2 +/-0.5 | 2.3 +/-0.2 | 0.55 | 28 +/-3.0 |
| LR1L | 6.2 +/-0.5 | 2.3 +/-0.2 | 0.55 | 28 +/-3.0 |
| LR2 | 9.7 +/-0.3 | 3.5 +/-0.2 | 0.55 | 28 +/-3.0 |
| LR100 | 12.0 max | 5.0 max | 0.7 | 28 +/-3.0 |
| LR200 | 12.0 max | 5.5 max | 0.7 | 28 +/-3.0 |

* Length is measured in accordance with IEC 294.

Power Derating Curve



Surface Temperature Rise Vs Load



Type LR Series

Mounting

The resistors are suitable for processing on automatic insertion equipment and cutting and bending machines.

Marking

The resistors are marked with a colour band code in accordance with JIS C 0802.

Packaging

LR0204, LR1L and LR1 resistors are normally supplied taped in 'ammo' boxes of 4000 pieces.
 LR2 resistors are normally supplied taped in 'ammo' boxes of 1000 pieces.
 Other package styles on request.
 All tape specifications are in accordance with IEC 286-1.

Performance Characteristics

The evaluation of the performance characteristics is carried out with reference to IEC Specifications QC 400 000 and QC 400 100.

| TEST REF | Long Term Tests $\pm(1\% + 0.05 \text{ ohm})$ |
|----------|---|
| 4.23 | Climatic sequence |
| 4.24 | Damp heat, steady state |
| 4.25.1 | Endurance at 70°C |
| 4.25.3 | Endurance at 125°C |
| TEST REF | Short Term Tests $\pm(0.25\% + 0.05 \text{ ohm})$ |
| 4.13 | Overload |
| 4.16 | Robustness of terminations |
| 4.18 | Resistance to soldering heat |
| 4.19 | Rapid change of temperature |
| 4.22 | Vibration |

* For LR1L the limits are $\pm(5\% + 0.1 \text{ ohm})$ and $\pm(1\% + 0.05 \text{ ohm})$ respectively. All resistance values are measured at a distance of 12mm from the end cap.

How to Order

| LR | 1 | F | 100R |
|--------------------------------|--|--|--|
| Common Part | Style | Tolerance | Value |
| LR - Metal Film Fixed Resistor | 0204 - 0.25W 1L - 0.5W 1 - 0.6W 2 - 0.75W 100 - 1W 200 - 2W | J - 5% G - 2% F - 1% D - 0.5% | 100 ohm (100 ohms) 100R 1K0 (1000 ohms) 1K0 100 K ohm (100,000 ohms) 100K |

TE Connectivity, TE connectivity (logo) and TE (logo) are trademarks.
 Other logos, product and Company names mentioned herein may be trademarks of their respective owners.

While TE has made every reasonable effort to ensure the accuracy of the information in this datasheet, TE does not guarantee that it is error-free, nor does TE make any other representation, warranty or guarantee that the information is accurate, correct, reliable or current. TE reserves the right to make any adjustments to the information contained herein at any time without notice. TE expressly disclaims all implied warranties regarding the information contained herein, including, but not limited to, any implied warranties of merchantability or fitness for a particular purpose. The dimensions in this datasheet are for reference purposes only and are subject to change without notice. Specifications are subject to change without notice. Consult TE for the latest dimensions and design specifications.



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)

Факс: 8 (812) 320-02-42

Электронная почта: org@eplast1.ru

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.