

》特征 Features

| | |
|------------------------------------|---------------------------------|
| 阻值范围 Resistance value | 0.5~500mΩ |
| 精度 Tolerance | ±1%、±2%、±5% |
| 功率 Power | 1W、2W、3W |
| 温度系数 Temperature coefficient | ±350ppm/°C、±100ppm/°C、±50ppm/°C |
| 工作温度范围 Operating temperature range | -55°C~170°C |
| 低电感 Low inductance | < 5nH (1MHz) |
| 绝缘阻抗 Insulation resistance | ≥100MΩ |
| 耐压值 Withstand voltage | 500V |
| 符合RoHS要求 | RoHS compliant |



》应用范围 Applications

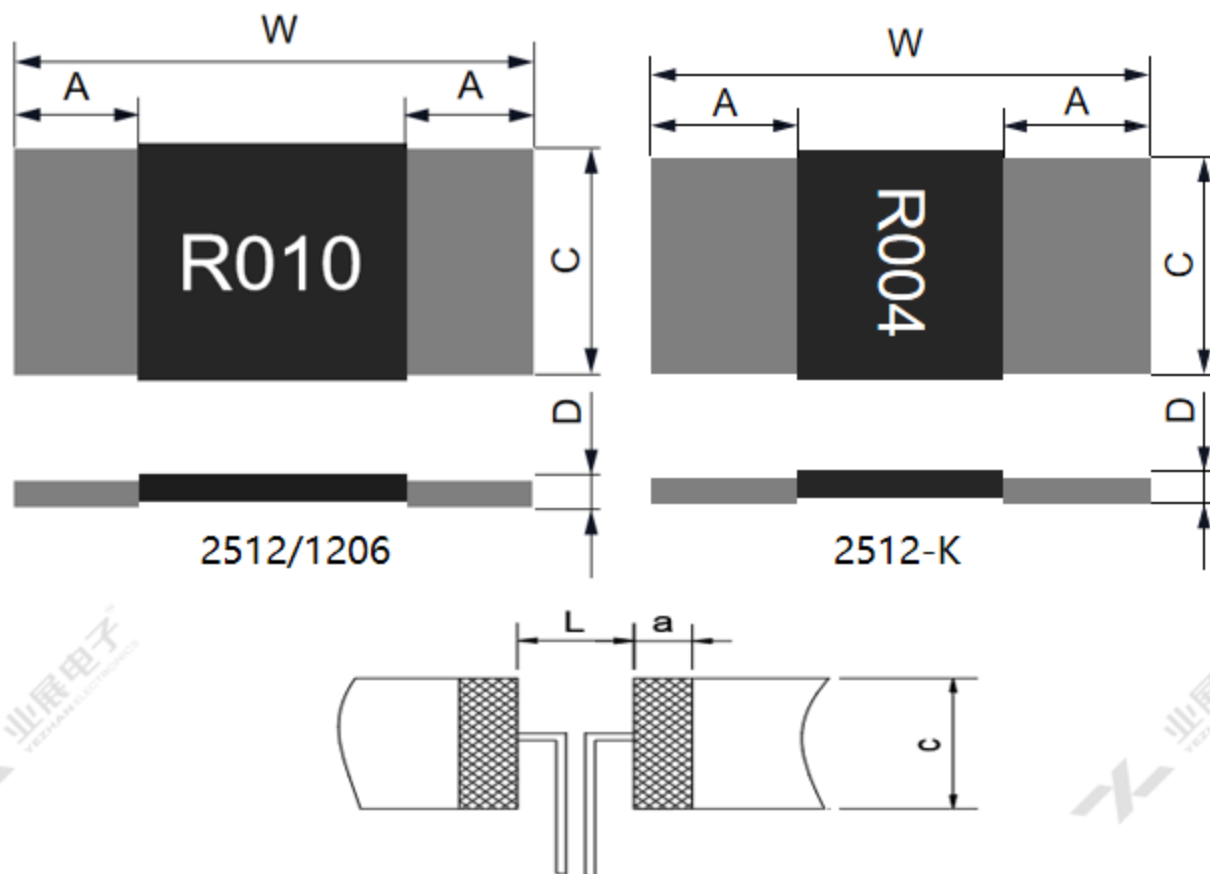
| | |
|----------|------------------------------|
| 电流采样 | Current Sensing |
| 过流保护 | Over current protection |
| 伺服电机控制电路 | Servo motor control circuits |
| 变频电源 | Inverter power |
| 电子控制系统 | Electric control system |
| 锂电池控制板 | Li-battery management system |

》订购信息 Ordering Information

| | | | | | |
|------------|----------------------|---------------------------------|-----------------------|----------------------------|-----------|
| YLRY | 12 | -3 | -10 | F | -K |
| 类型 Type | 尺寸 Size | 功率 Power | 阻值 Resistance | 精度 Tolerance | 电极 Pin |
| YLRY | 06: 1206 12: 2512 | Unit: W 1:1W 2:2W 3:3W | Unit: mΩ 10: 10 mΩ | F: ±1% G: ±2% J: ±5% | K: 宽电极 |

产品尺寸和推荐焊盘尺寸

Products & Recommend Pad Dimension



Unit: mm

| Type | Resistance | $W \pm 0.2$ | $C \pm 0.2$ | $A \pm 0.2$ | $D \pm 0.1$ | L | a | c |
|----------|------------|-------------|-------------|-------------|-------------|-----|-----|-----|
| YLRY06 | 1~6 | 3.2 | 1.6 | 0.6 | 0.7 | 1.6 | 1.7 | 1.8 |
| | 6~100 | | | | 0.55 | | | |
| YLRY12 | 0.5~500 | 6.4 | 3.2 | 1.0 | 0.8 | 4.1 | 2.1 | 4 |
| YLRY12-K | 0.5~4 | 6.4 | 3.2 | 2.2 | 0.8 | 1.3 | 3.1 | 4 |

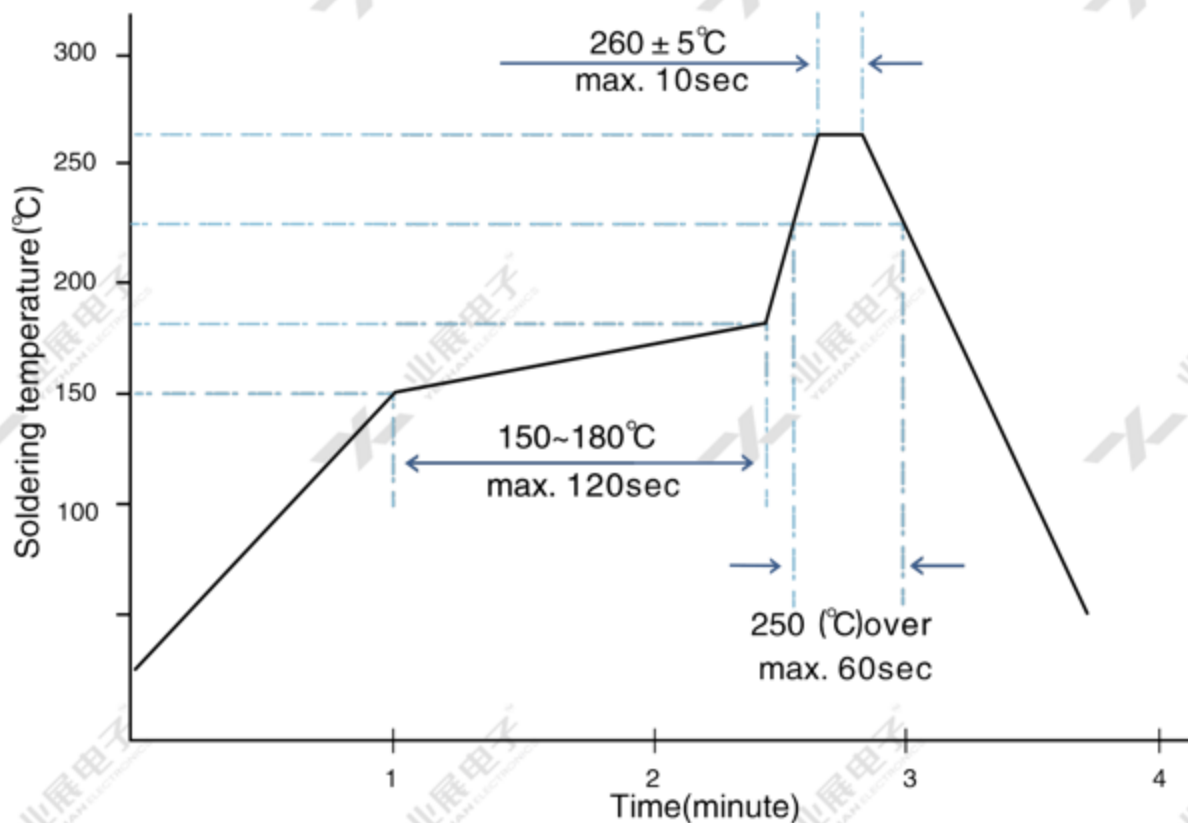
标准电气规范 Standard Electrical Specifications

| 系列 Type | 功率 Rated Power(W) | 阻值 Resistance /mΩ | 温漂 TCR® (ppm/°C) | 精度 Resistance Tolerance (%) | 工作温度 Operating Temperature (°C) |
|------------|----------------------|-------------------------|------------------------|-----------------------------------|--|
| | P70°C | | | | |
| YLRY06 | 1 | 1~4 | ±350 | ±1% ±2% ±5% | -55°C~170°C |
| | | 4~100 | ±50 | | |
| YLRY12 | 2、3 | 0.5~1.5 | ±350 | | |
| | | 1.5~500 | ±50 | | |
| YLRY12-K | 2、3 | 0.5~1 | ±350 | | |
| | | 1~4 | ±50 | | |

耐久性测试 Endurance Test

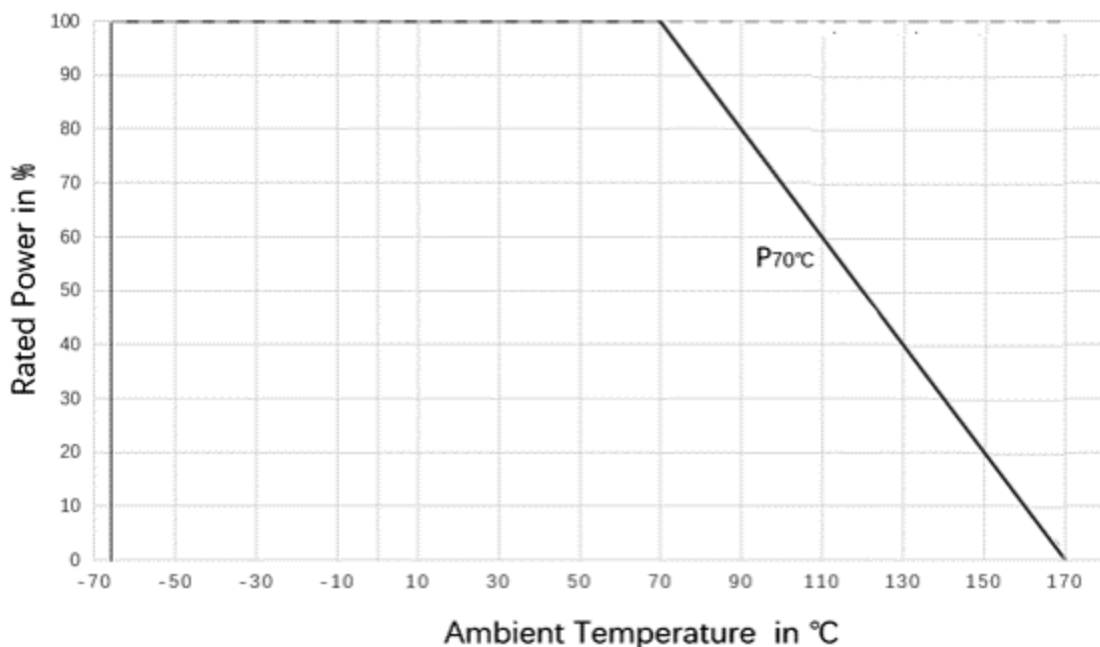
| Items | Additional Requirements | Reference | Limits |
|------------------------------|---|------------------------|----------------------|
| Temperature Cycling | 1000 Cycles (-55°C to +150°C) | JESD22 Method JA-104 | ±0.5% |
| ESD Test | 1) Direct Contact (DC): ±6kV; 2) Air Discharge (AD): ±12kV, ±16kV, ±25kV; | AEC-Q200 REV D June 1 | ±1.0% |
| High Temperature Exposure | 1000hrs.@T=170°C.Unpowered. | MIL-STD-202 Method 108 | ±1.0% |
| Moisture Resistance | t=24hrs/cycle.Note: Steps 7a & 7b not required. Unpowered. | MIL-STD-202 Method 106 | ±1.0% |
| Biased Humidity | 1000hrs 85°C/85%RH. Note: Specified conditions:10% of operating power. | MIL-STD-202 Method 103 | ±1.0% |
| Operational Life | Condition D Steady State TA=125°C at rated power. | MIL-STD-202 Method 108 | ±1.0% |
| Thermal Shock | 1000X(-55°C to +150°C) | MIL-STD-202Method107G | ±1.0% |
| Solderability | 235°C±5°C,2s±0.5s | J-STD-202 | 95% Coverage Minimum |
| Resistance to Soldering Heat | 260°C±5°C, 10s±1s | MIL-STD-202 Method 210 | ±0.5% |
| Short Time Overload | 5×Rated power for 5 s | MIL-STD-202 Method 201 | ±1.0% |
| Shock | 100g , 6ms , Orientation & Shock time: ±X, ±Y, ±Z; 3 times each orientation, total 18 times. | MIL-STD-202 Method 213 | ±1.0% |
| Vibration | 5 g's for 20 min, 12 cycles each of 3 orientations. Note: Use 8"X5" PCB .031" thick 7 secure points on one long side and 2 secure points at corners of opposite sides. Parts mounted within 2" from any secure point. Test from 10-2000 Hz. | MIL-STD-202Method204 | ±1.0% |

回流焊温度曲线 Solder Reflow Temperature Condition



降功率曲线 Power Derating Curve

POWER DERATING CURVE



印字标识 Marking

All the products marking are 4 digits. 'R' designates the decimal location in ohms

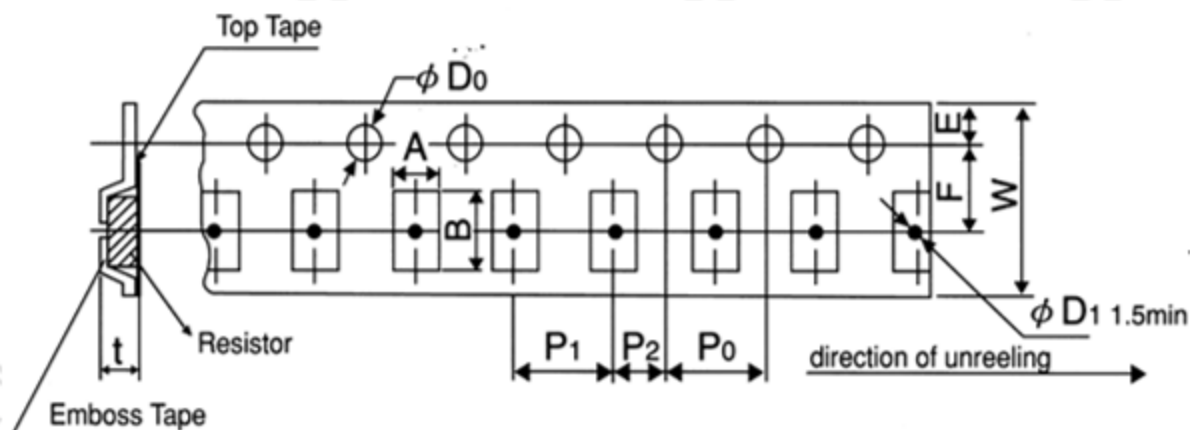
E.g.,

0.5mΩ = R0005; 5mΩ = R005; 50mΩ = R050

包装 Packing

存储条件 Storage Conditions: Temperature: 5°C~35°C, Humidity: 40%~75%

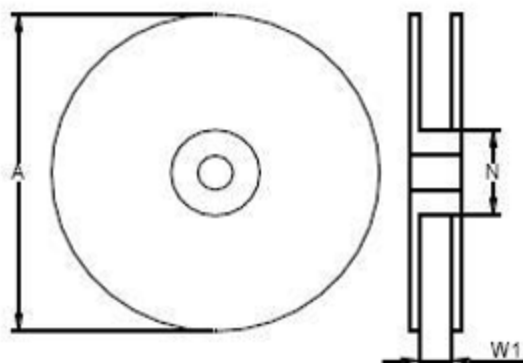
编带盘装: Embossed Plastic Tape



Unit/mm

| Type | A±0.15 | B±0.1 | W±0.2 | F±0.05 | E±0.1 | P ₁ ±0.1 | P ₂ ±0.05 | P ₀ ±0.05 | D ₀ ±0.1 | t±0.1 | Qty/reel |
|----------|--------|-------|-------|--------|-------|---------------------|----------------------|----------------------|---------------------|-------|----------|
| YLRY06 | 2.0 | 3.6 | 8.0 | 3.5 | 1.75 | 4.0 | 2.0 | 4.0 | Φ1.5 | 0.8 | 5000 |
| YLRY12 | 3.5 | 6.8 | 12.0 | 5.5 | 1.75 | 4.0 | 2.0 | 4.0 | Φ1.5 | 1.0 | 4000 |
| YLRY12-K | 3.5 | 6.8 | 12.0 | 5.5 | 1.75 | 4.0 | 2.0 | 4.0 | Φ1.5 | 1.0 | 4000 |

» 料盘规格 Reel & Tape Specifications



Unit/mm

| Type | A | N | W1 |
|----------|---------|--------|----------|
| YLRY06 | 178±2.0 | 60±1.0 | 9±0.3 |
| YLRY12 | 178±2.0 | 60±1.0 | 13.3±0.5 |
| YLRY12-K | 178±2.0 | 60±1.0 | 13.3±0.5 |

» 版本信息 Version History

| 版本 Version | 日期 Date | 修订描述 Description of amendment | 拟定 Draft | 审核 Checked |
|---------------|-------------|----------------------------------|-------------|---------------|
| A1.0 | 05-Jun-2023 | 首版发行 | 罗国涛 | 胡紫阳 |

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