

### 》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

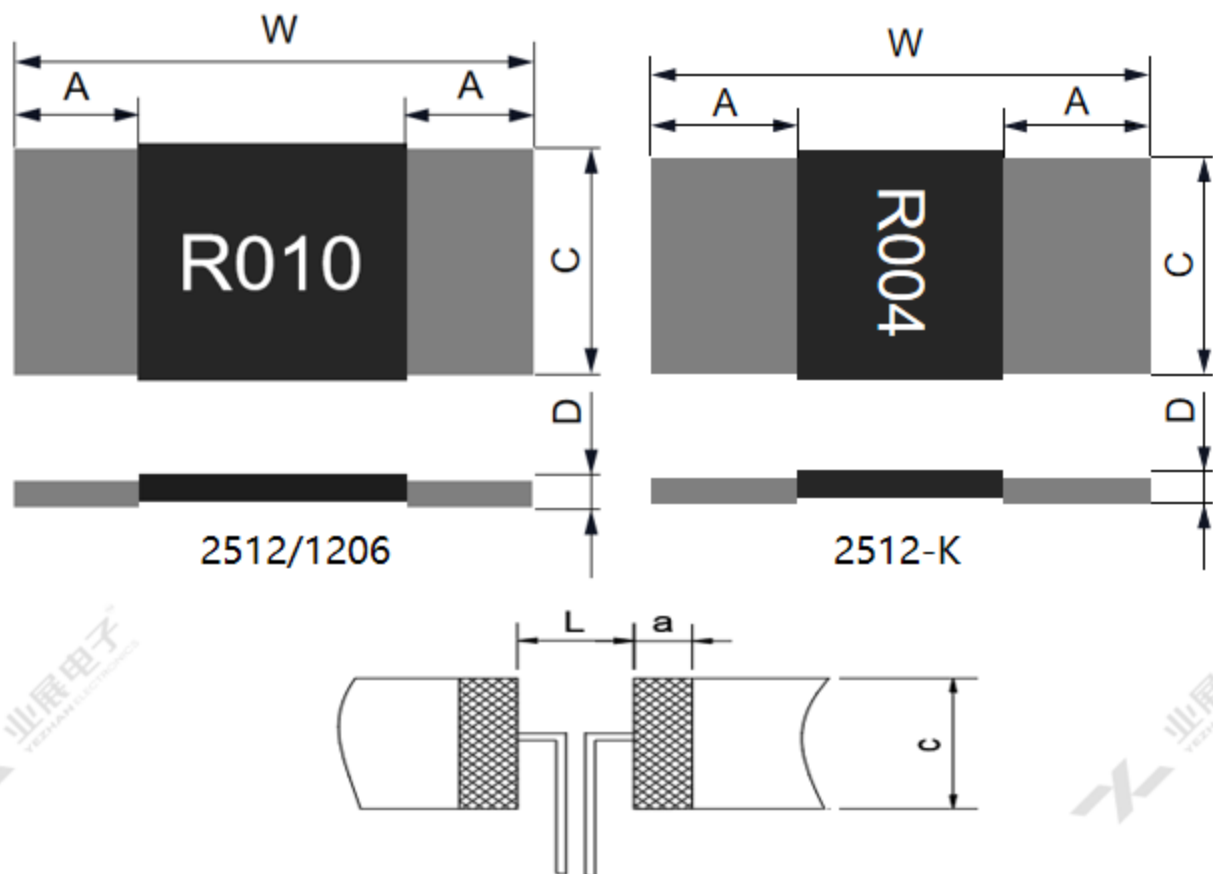
电流采样	Current Sensing
过流保护	Over current protection
伺服电机控制电路	Servo motor control circuits
变频电源	Inverter power
电子控制系统	Electric control system
锂电池控制板	Li-battery management system

### 》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±0.2	C±0.2	A±0.2	D±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

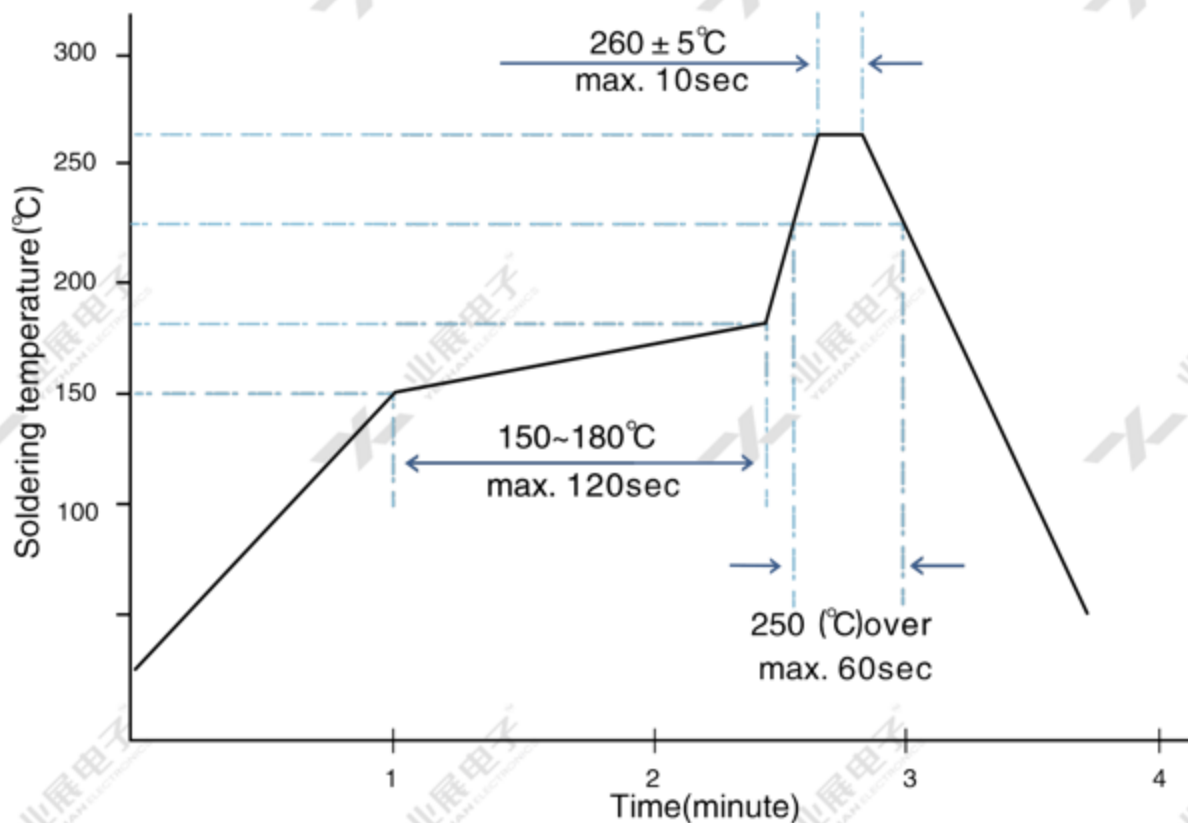
## 标准电气规范 Standard Electrical Specifications

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

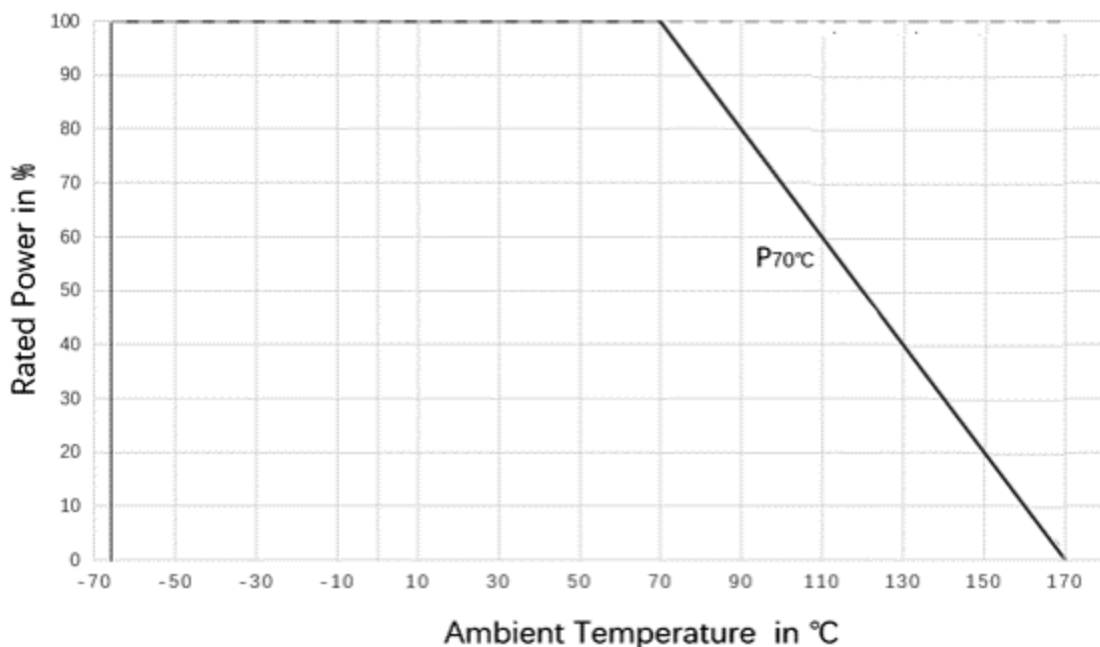
Items	Additional Requirements	Reference	Limits
Temperature Cycling	1000 Cycles (-55°C to +150°C)	JESD22 Method JA-104	±0.5%
ESD Test	1) Direct Contact (DC): ±6kV; 2) Air Discharge (AD): ±12kV, ±16kV, ±25kV;	AEC-Q200 REV D June 1	±1.0%
High Temperature Exposure	1000hrs.@T=170°C.Unpowered.	MIL-STD-202 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

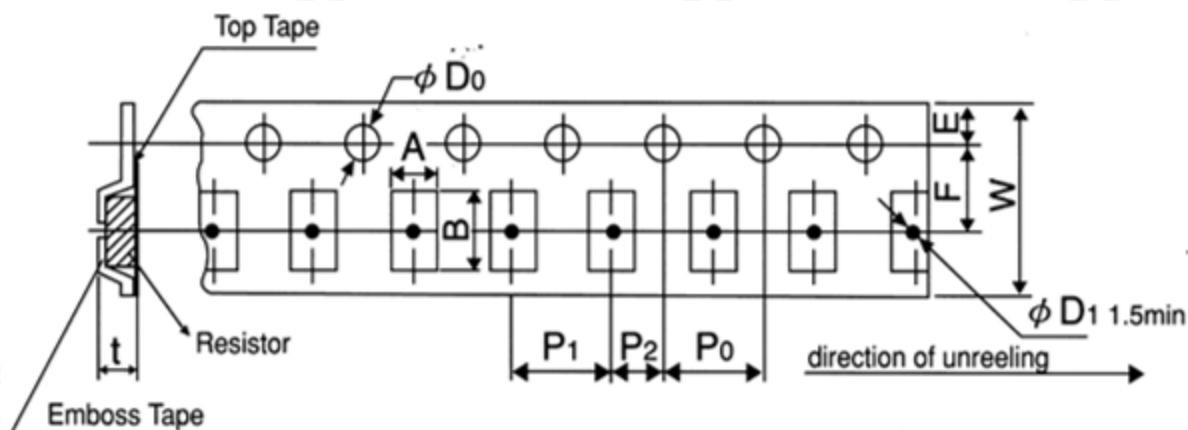
E.g.,

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

### 包装 Packing

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

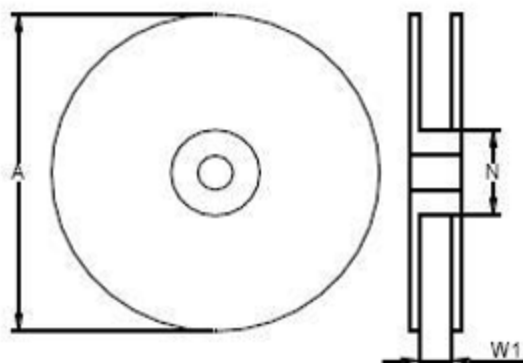
编带盘装: Embossed Plastic Tape



Unit/mm

Type	A±0.15	B±0.1	W±0.2	F±0.05	E±0.1	P <sub>1</sub> ±0.1	P <sub>2</sub> ±0.05	P <sub>0</sub> ±0.05	D <sub>0</sub> ±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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