低阻值合金电流采样贴片电阻-YLRY系列
Low Resistance Metal Strip Chip Resistors-YLRY series

业展电子 YEZHAN ELECTRONICS

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/℃、±100ppm/℃、±50ppm/℃
工作温度范围 Operating temperature range	-55℃~170℃
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

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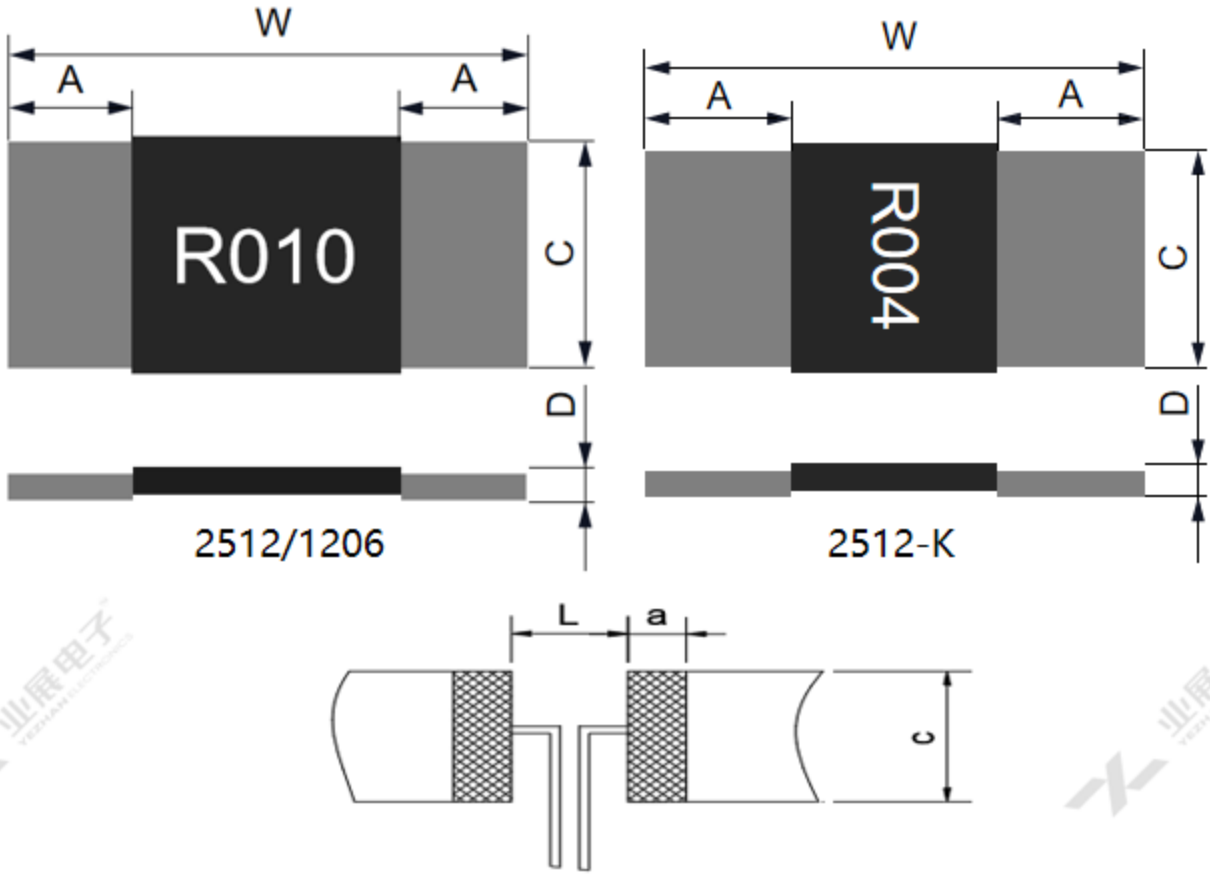
产品尺寸和推荐焊盘尺寸
Products & Recommend Pad Dimension



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

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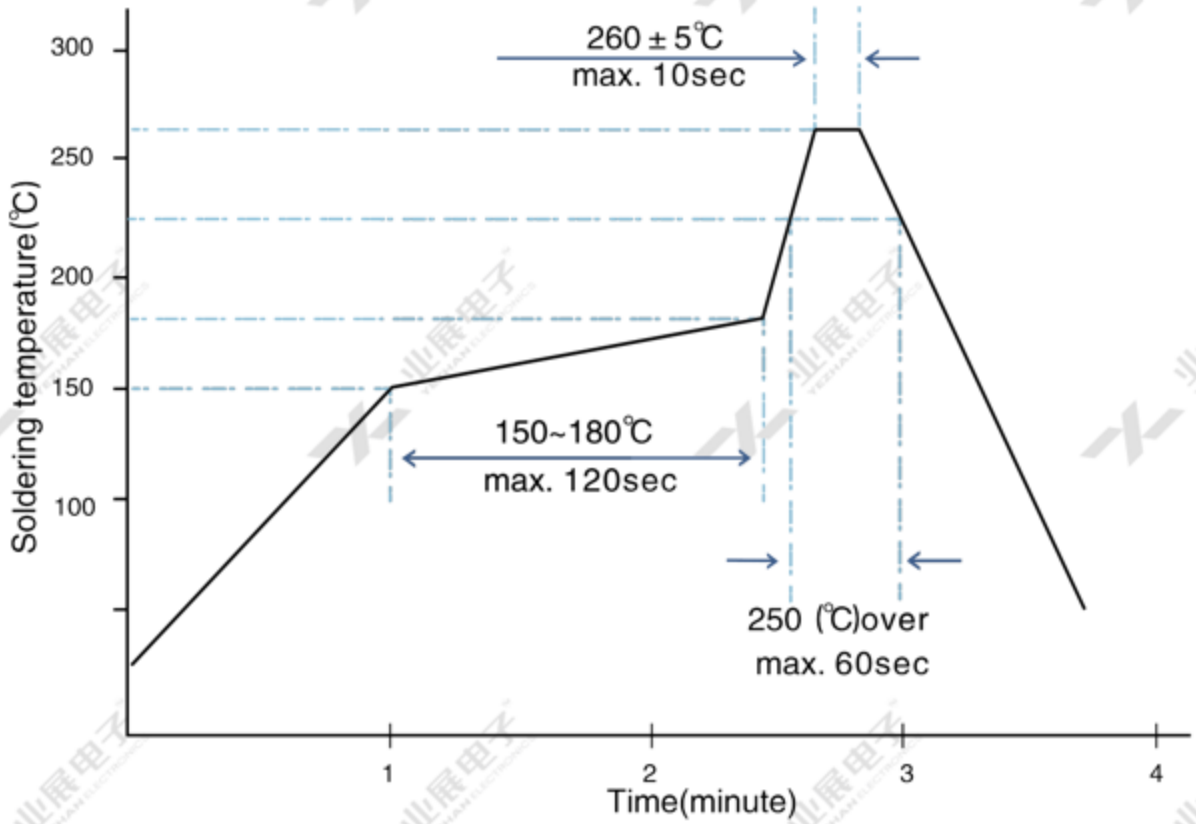
标准电气规范 Standard Electrical Specifications

系列 Type	功率 Rated Power(W) P70℃	阻值 Resistance /mΩ	温漂 TCR® (ppm/℃)	精度 Resistance Tolerance (%)	工作温度 Operating Temperature (℃)
YLRY06	1	1~4	±350	±1% ±2% ±5%	-55℃~170℃
		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		

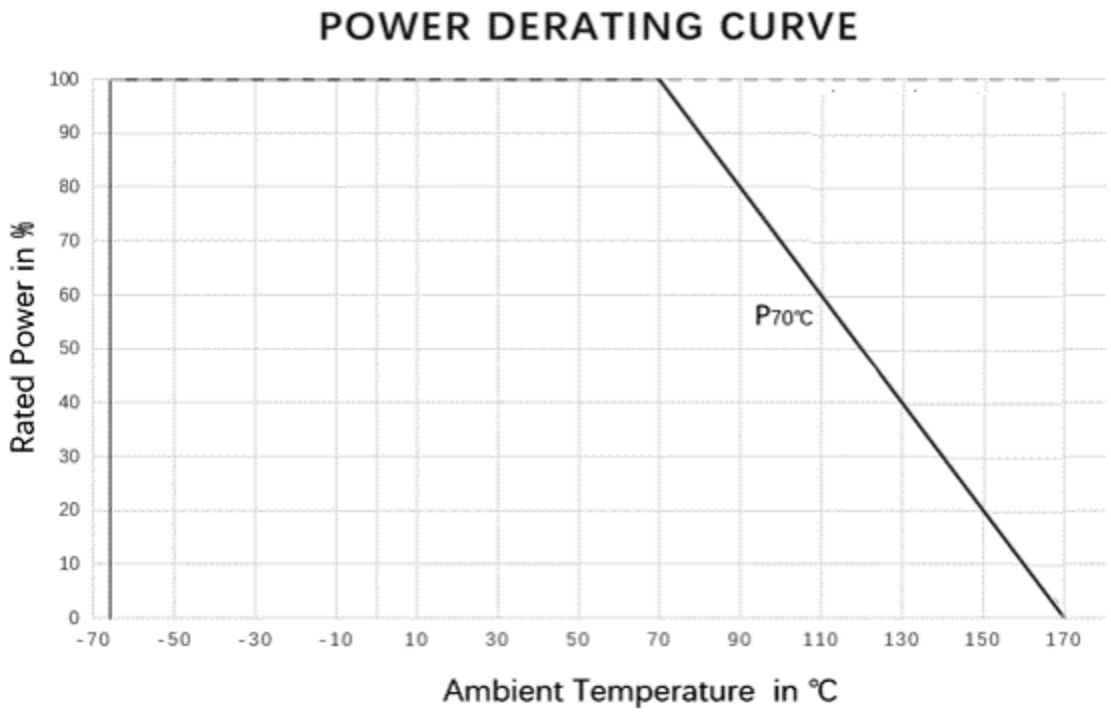
耐久性测试 Endurance Test

Items	Additional Requirements	Reference	Limits
Temperature Cycling	1000 Cycles (-55℃ to +150℃)	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℃.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℃/85%RH。Note: Specified conditions:10% of operating power.	MIL-STD-202 Method 103	±1.0%
Operational Life	Condition D Steady State TA=125℃ 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℃±5℃,2s±0.5s	J-STD-202	95% Coverage Minimum
Resistance to Soldering Heat	260℃±5℃，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

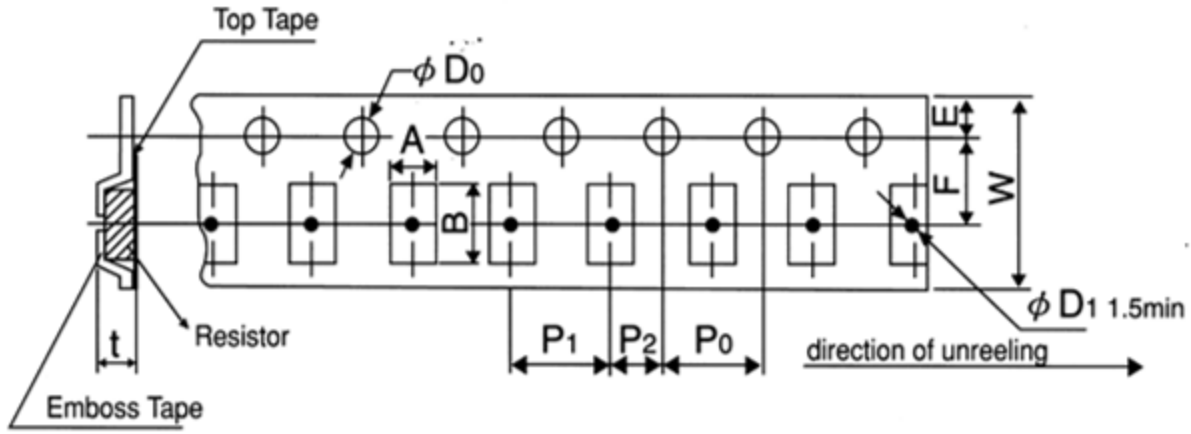


印字标识 Marking

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

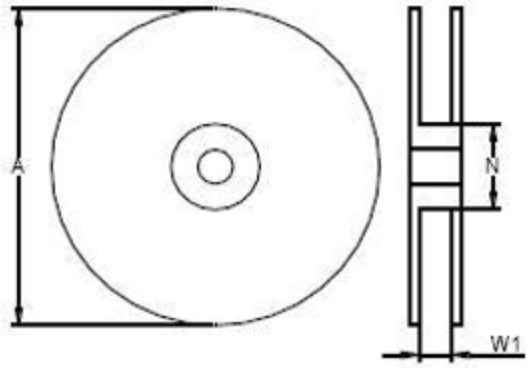
存储条件 Storage Conditions: Temperature:5℃~35℃, Humidity:40%~75%
编带盘装：Embossed Plastic Tape



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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