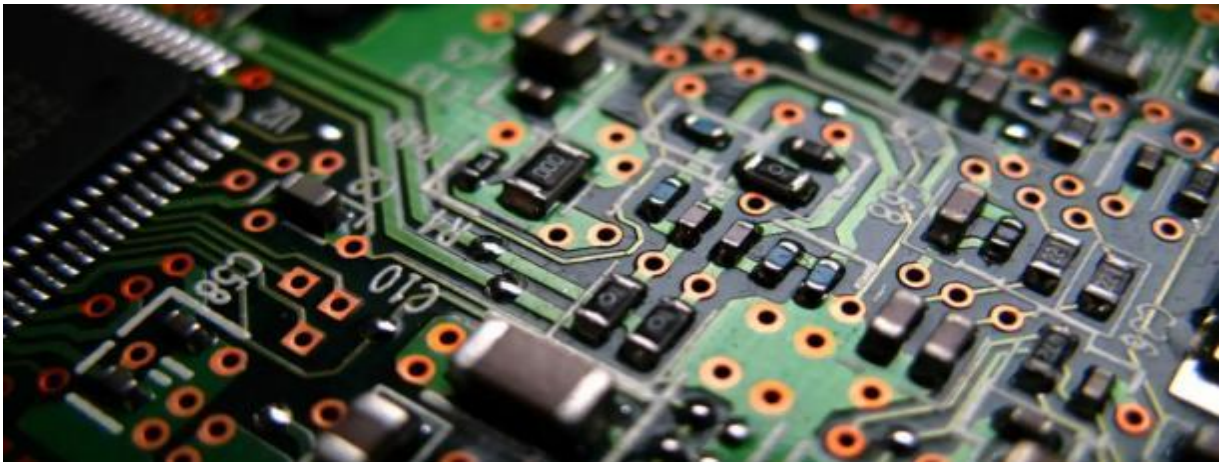


合金电阻规格书-1206
Alloy resistance specification

适用范围 Scope

- 合金电阻1206系列 Metal Alloy Resistance 1206 Series.
- 符合ROHS 要求 Complies With ROHS Requirements
- 符合车规AEC-Q200 测试 Conforms To Vehicle-specific AEC-200 Tests
- 寄生电感小于等于5nH The parasitic inductance is less than or equal to 5 nH



型号规格Type Designation :

电阻尺寸 Product Type	产品类型 Resistor Size	功率 Power	阻值精度 Resistance tolerance	阻值范围 Resistance
1206	SE(小电极)	3W	F: 1% G: 2% J: 5%	R000
		1W		0mΩ<R≤100mΩ

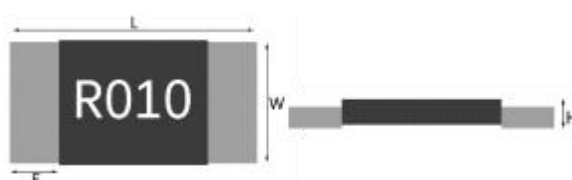
编码原则Coding principle:

制造商/产品 manufacturer	尺寸 size	类型 type	功率 power	阻值 resistance	精度 accuracy	包装数量 quantity
YHR	1206	小电极 SE	1W	R001 R002	1%=F 2%=G 5%=J	1206(5)

示例/ Example: YHR1206SE1WR002F5

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结构尺寸Construction and Dimension：

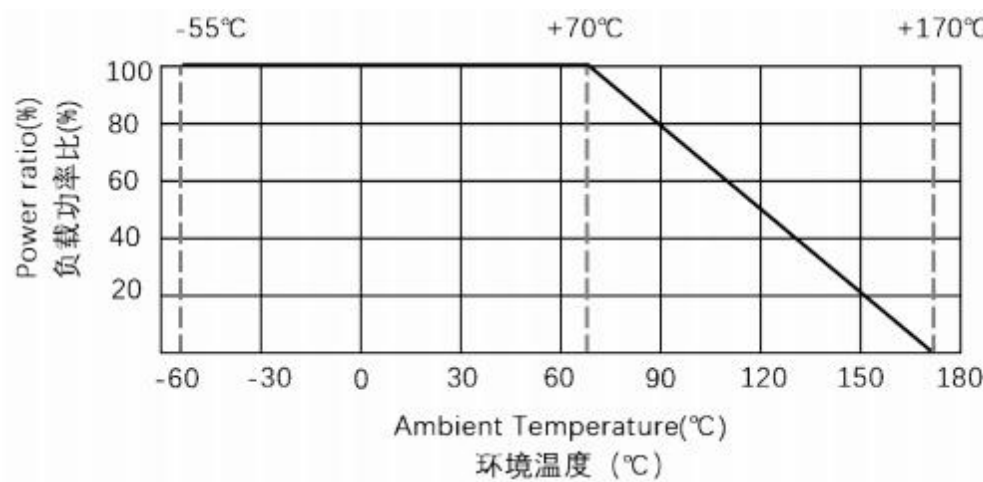
产品尺寸 Product	类型 type	图示 Illustration	尺寸 Size	图例 legend
1206	SE	L	3.2±0.2	
		W	1.6±0.2	
		E	0.6±0.2	
		H	0.7±0.1	
			0.55±0.1	
			R ≤ R006,H=0.7±0.2mm, R > R006,H=0.55±0.2mm,	

电气规格Electrical Specifications：

类型 Type	功率 Power	阻值范围 Resistance range	材料 Material	温度系数 TCR ppm/°C	工作温度范围 Operating temperature range	阻值精度 Resistance tolerance	绝缘电阻 Insulation resistance	最大工作电压 Maximum operating voltage (V)
SE 1206	3w	R000	紫铜	/	$-55^{\circ}\text{C}\sim+170^{\circ}\text{C}$	1% 2% 5%	Over 100M Ω	$(P\cdot R)^{\frac{1}{2}}$
	1w	$R<0.2\text{m}\Omega$ $R=0.5\text{m}\Omega$						
		$1\text{m}\Omega\leq R<3\text{m}\Omega$	MnCu	±350				
		$3\text{m}\Omega\leq R<70\text{m}\Omega$	MnCu	±50				
		$70\text{m}\Omega\leq R\leq 100\text{m}\Omega$	KAMA	±50				

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功率衰减曲线图 / Derating Curve



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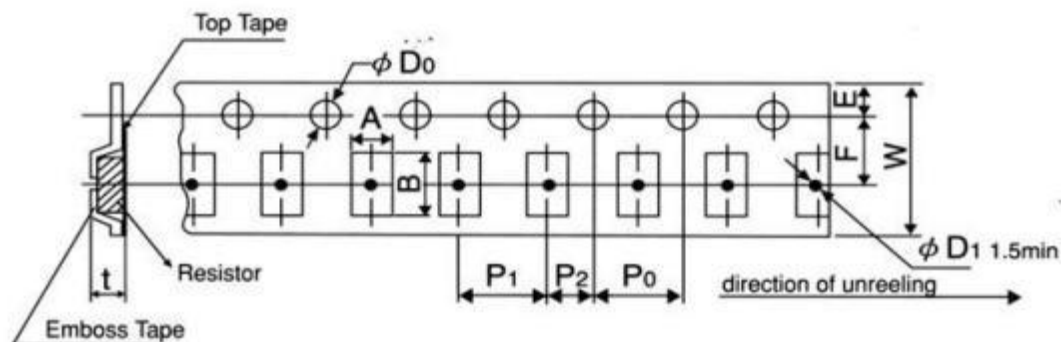


可靠性验证Reliability Tests

项目 Project	检测方法Test Method (依据标准Refer to IEC 60115,60068; JIS-C 5201-1)	规格和要求 Specifications and Requirements
温度系数 Temperature coefficient (TCR)	25℃ (T1、R1)、125℃(T2、R2)条件下分别测量阻值，计算 TCR=(R2-R1)/ (R1 (T2-T1)) *10^6 Resistance values were measured at 25℃(T1, R1) and 125℃(T2, R2), and TCR was calculated as (R2-R1)/ (R1 (T2-T1)) *10^6	参考物理特性TCR规格 Refer to TCR specifications for physical features
短时间过载 ShortTimeOverload	5倍额定功率，保持5s (R000/R0005-最大电流100A) 5 times rated power, maintain 5s	$\Delta R \leq \pm (1\%+0.05m\Omega)$
绝缘电阻 Insulation resistance	在电极与基片间施加100V±15V直流电压，保持60s，然后测绝缘电阻 Apply 100V±15V DC voltage between electrode and substrate, hold for 60 seconds, then measure insulation resistance	> 100 MΩ
耐电压 Withstand voltage	在电极与基片之间以大约100V/S的速率施加有效值为最大过负荷电压的交流电，保持60±5s An alternating current with an effective value of the maximum overload voltage is applied between the electrode and the substrate at a rate of approximately 100V/S, maintaining 60±5s	无击穿或飞弧 No breakdown or arc
焊锡性 solderability	245℃±5℃ 锡槽，保持2s±0.5s 245℃±5℃ tin tank, hold 2s±0.5s	电极上锡面积>95% At least 95% of surface area of electrode shall be covered with new solder
耐热性 Resistance to Soldering Heat	270℃±5℃ 锡槽，保持10s±1s 270℃±5℃ tin tank, hold for 10s±1s	$\Delta R \leq \pm (0.5\%+0.05m\Omega)$, 无可见损伤 no visible damage
弯曲测试 Bending test	弯曲距离2mm，保持时间60s±5s Bending distance 2mm, hold time 60s±5s	$\Delta R \leq \pm (0.5\%+0.05m\Omega)$ 无机械损伤 no mechanical damage
耐溶测试 Solvent resistance	异丙醇(IPA), 23℃±5℃,浸10小时 Isopropanol (IPA) at 23℃±5℃ for 10 hours	外观无明显损伤 No obvious damage to appearance
长期高温 High Temperature Exposure	高温170℃放置1000H 170℃±2℃, 1000H, stand for 1H, test the resistance value	$\Delta R \leq \pm (1.0\%+0.05m\Omega)$
长期低温 Low Temperature Exposure	低温-55℃放置1000H -55℃±2℃, 1000H, stand for 1H, test the resistance value	$\Delta R \leq \pm (0.5\%+0.05m\Omega)$
温度循环 Rapid change of Temperature	-55℃ 30分钟~常温 5分钟~155℃ 30分钟，1000个循环 -55℃ 30 minutes ~ normal temperature 5 minutes ~155℃ 30 minutes, 1000 cycles	$\Delta R \leq \pm (0.5\%+0.05m\Omega)$
长期耐久 Load Life	70℃±2℃，1000小时，额定功率，通1.5小时/断0.5小时 70℃±2℃, 1000 hours, rated power 1.5 hours on / 0.5 hours off	$\Delta R \leq \pm (1.0\%+0.05m\Omega)$
长期耐湿 Moisture with Load	85℃±2℃, 85%±3%RH，持续1000小时，额定功率，通1.5小时/断0.5小时 85℃±2℃, 85%±3%RH, 1000 hours, rated power, 1.5 hours on / 0.5 hours off	$\Delta R \leq \pm (1.0\%+0.05m\Omega)$

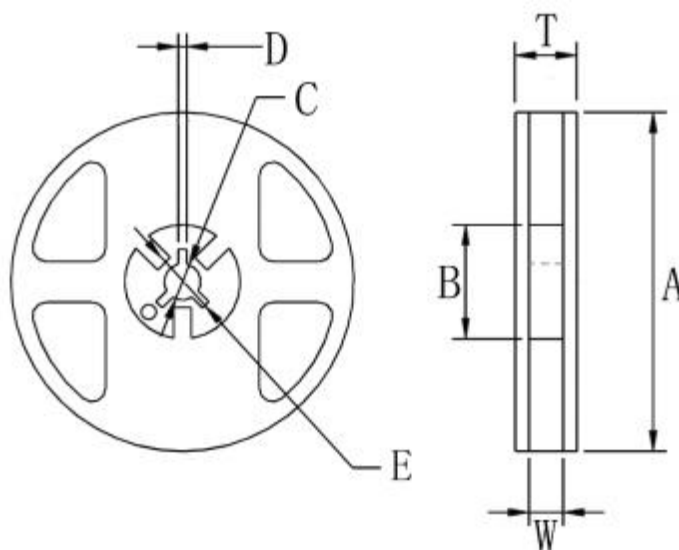
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载带尺寸Tape Packaging Dimensions:



A	B	W	F	E	P ₁	P ₂	P ₀	D ₀	t
2.0±0.15	3.6±0.1	8.0±0.2	3.5±0.05	1.75±0.1	4.0±0.1	2.0±0.05	4.0±0.05	1.5~1.6	0.87±0.05

卷盘尺寸Reel Dimensions:

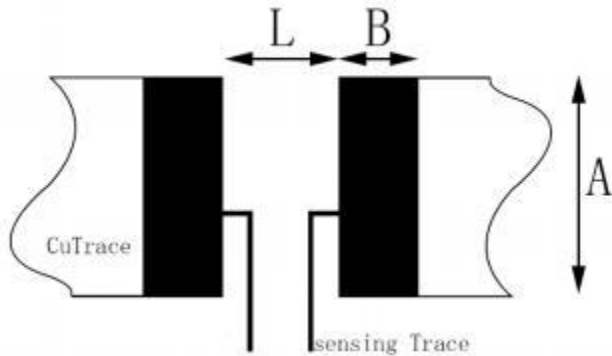


型号 Type	A	B	C	D	E	T	W
Reel	178±2.0	60±1.0	13±1.0	2.0±0.5	>22	11.4±0.5	9.0±0.3

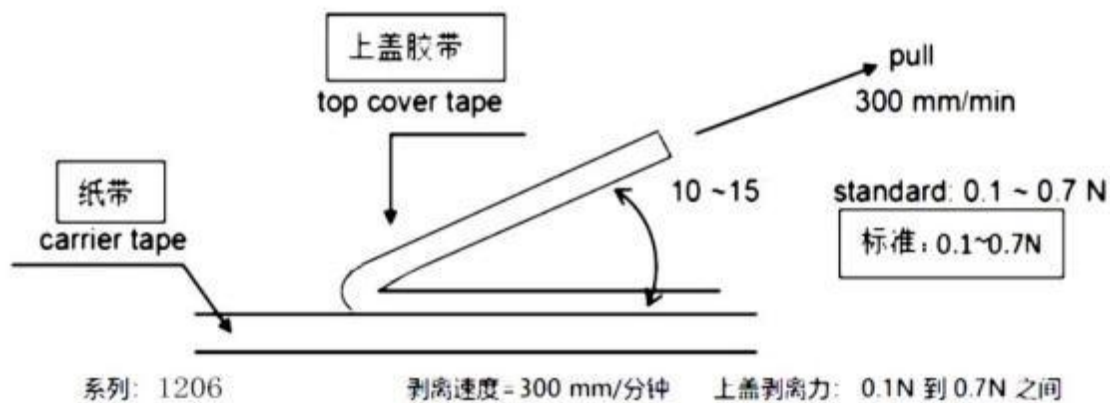
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焊盘尺寸 : Pad size

焊盘 Pattern	尺寸Size
	SE(短电极)
A	1.8
B	1.7
L	1.6



载带拉力 : Belt Tension



注意事项 : matters needing attention

- 1, 储存时应注意温度和湿度 (温度 5 ~ 35℃, 相对湿度 45 ~ 75% RH). 湿度尽可能保持在范围内 ; Chip resistor shall be stored in a room where temperature and humidity must be controlled. (temperature 5 to 35℃, humidity 45 to 75% RH) However, a humidity keep it low, as it is possible.
- 2, 不能阳光长时间直接照射产品 ; Chip resistor shall be stored as direct sunshine doesn't hit on it.
- 3, 不能存储在潮湿, 灰尘及导致焊接性能变差的有害气体环境中(氯化氢气体、亚硫酸气体、硫化氢气体) ; Chip resistor shall be stored with no moisture, dust, a material that will make solder ability inferior, and a harmful gas (Hydrogen chloride, sulfurous acid gas, and Hydrogen sulfide)
- 4, 保存期限: 1 年 ; Storage life: 1 year;

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版本信息 :Version History

版本 Version	日期 Date	修订描述 Description of amendment
A1	2022/12/5	首版发行
A2	2023/04/05	更新 $1\text{m}\Omega \leq R < 3\text{m}\Omega$ 温度系数
A3	2023/11/05	修改包装数量
A4	2023/05/06	更新阻值段范围R060-R100
A5	2024/01/23	更新阻值功率
A6	2024/12/02	更新寄生电感范围

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