

合金电阻-1206 工程规格

1. 电阻介绍

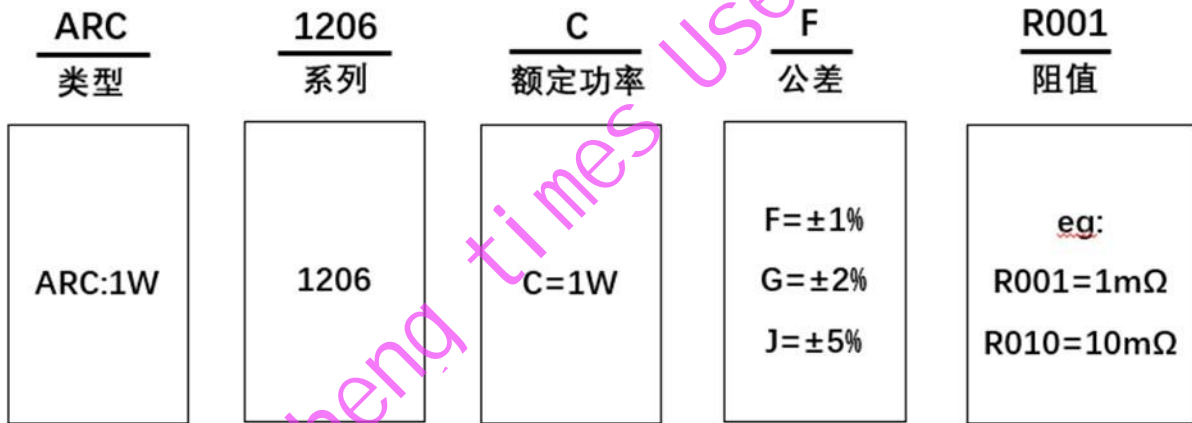
1.1、合金贴片电阻又称为电流检测电阻、电流感测电阻、合金取样电阻、电流感应电阻、合金电阻。合金电阻采用符合高功率电气特性、高纯度、高导热、低温漂及耐高温的特殊合金，通过一体成型无切割的结构,可大幅降低电路板上的散热面积,达到几乎无电感值。合金电阻作为电流载体,阻值精准,温度稳定,产品安全性、可靠性明显高于普通的陶瓷电阻。

1.2、合金电阻特点:

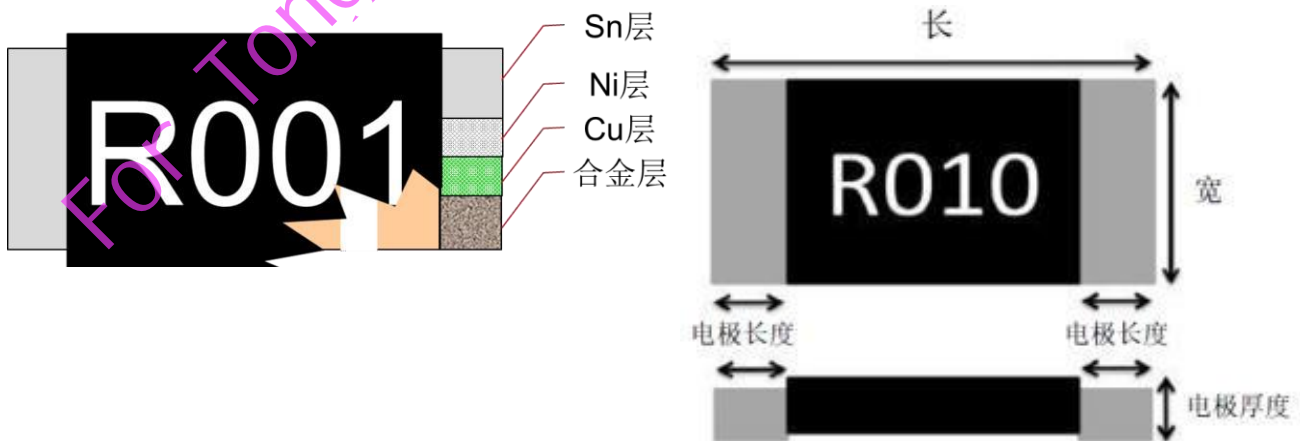
低阻值,高精密度,温度系数,耐冲击电流,大功率,体积小,重量轻,可大大节约电路空间成本,使设计更精细化。

1.3、贴片电阻的基本功能: 电流采样, 短路保护。

2. 品名构成



3. 结构



UNLESS OTHERWISE SPECIFIED TOLERANCES ON : X = ± X.X = ± X.XX = ± ANGLES ± HOLE DIA. ±	DRAWN BY :	深圳市通盛时代科技有限公司 SHENZHEN TONGSHENG TIMES TECHNOLOGY CO., LTD	
	DESIGNED BY :		
	CHECKED BY :	THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF FENCEN CO., LTD. AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION	
APPROVED BY :	SCALE : X	UNIT : X	DOCUMENT NO. ARC-
TITLE : The Engineering Specification for Current sensing resistor			

4. 规格尺寸

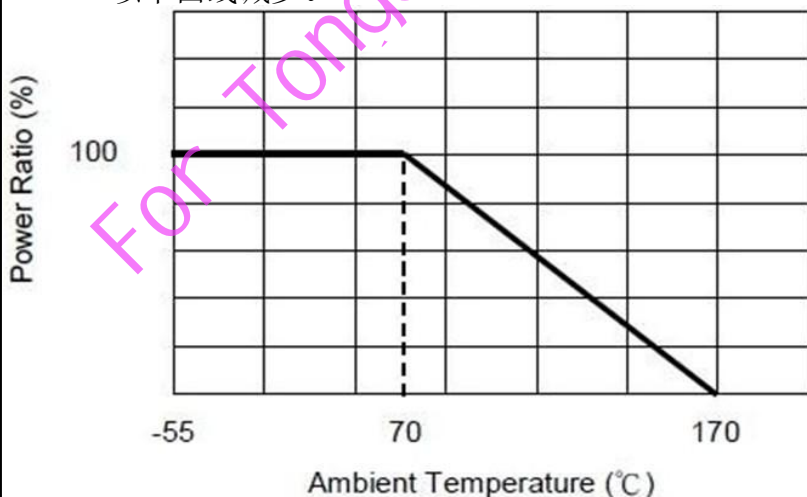
产品别	长 mm	宽 mm	电极长 mm	电极厚 mm
ARC-1206	3.2±0.20	1.6±0.20	0.50±0.20	0.60±0.20 (1mΩ ≤ R ≤ 10mΩ)
				0.45±0.2 (10mΩ ≤ R ≤ 100mΩ)

5. 物理特性

项目	规格	
额定功率	1W	
TCR (温度系数)	1~3mΩ	4~100mΩ
	±100ppm/°C-±350ppm/°C	±100 ppm/°C
使用温度	-55°C~+170°C	
阻值公差	±1%, ±2%, ±5%	
绝缘电阻	大于 100MΩ	
最大工作电压 (V)	(P*R) ^{1/2}	

6. 额降曲线

使用温度范围：-55°C~170°C，当电阻在高于 70°C 的周围环境中工作时，最大负载应该按照以下曲线减少。



UNLESS OTHERWISE SPECIFIED TOLERANCES ON : X = ± X.X = ± X.XX = ± ANGLES ± HOLE DIA. ±	DRAWN BY :	深圳市通盛时代科技有限公司 SHENZHEN TONGSHENG TIMES TECHNOLOGY CO., LTD		
	DESIGNED BY :			
	CHECKED BY :	THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF FENCEN CO., LTD. AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION		
	APPROVED BY :			
SCALE : X	UNIT : X	DOCUMENT NO.	ARC-	PAGE REV. A0
TITLE : The Engineering Specification for Current sensing resistor		PAGE 2 OF 6		

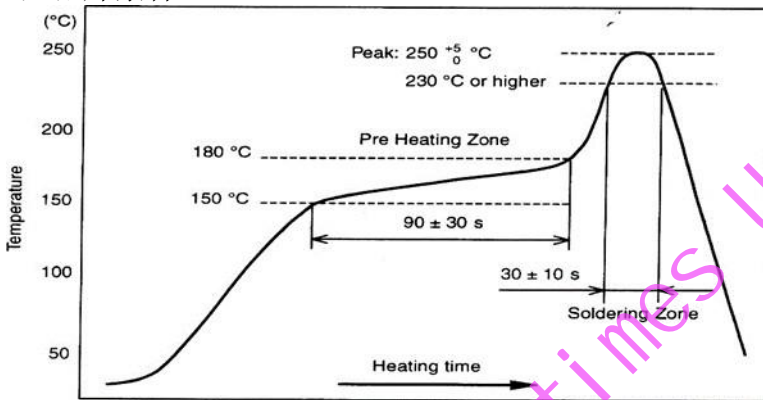
7. 特性

实验项目	测试方法	测试标准
弯曲测试	弯曲距离 2mm, 保持时间 60s ± 5s	$\Delta R \leq \pm (1.0\% + 0.05m\Omega)$
短时过载	2.5 倍额定功率, 保持 5s	$\Delta R \leq \pm (1.0\% + 0.05m\Omega)$
电阻温度系数	25°C (T1、R1)、125°C (T2、R2) 条件下分别测量阻值, 计算 $TCR = (R2 - R1) / (R1 (T2 - T1)) * 10^6$	参考 5 物理特性 TCR 规格
耐溶	异丙醇(IPA), 23°C ± 5°C, 浸 10 小时	无可见损伤
耐电压	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	无击穿或飞弧
绝缘	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。	>1000MΩ
可焊性	245°C ± 5°C 锡槽, 保持 2s ± 0.5s.	可焊面积 ≥ 95%
抗焊锡热	270°C ± 5°C 锡槽, 保持 10s ± 1s	无可见损伤 $\Delta R \leq \pm (1.0\% + 0.05m\Omega)$
电极拉力	25N	外观无可见损伤
长期高温	155°C ± 2°C, 1000H, 静置 1H 后测试阻值	$\Delta R \leq \pm (1.0\% + 0.05m\Omega)$

UNLESS OTHERWISE SPECIFIED TOLERANCES ON : X = ± X.X = ± X.XX = ± ANGLES ± HOLE DIA. ±	DRAWN BY :		深圳市通盛时代科技有限公司 SHENZHEN TONGSHENG TIMES TECHNOLOGY CO., LTD	
	DESIGNED BY :			
	CHECKED BY :		THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF FENCEN CO., LTD. AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION	
	APPROVED BY :			
	SCALE : X	UNIT : X		
TITLE : The Engineering Specification for Current sensing resistor		DOCUMENT NO.	ARC-	PAGE REV. A0

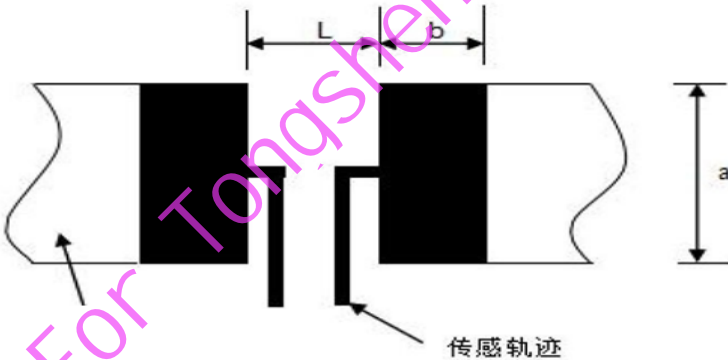
长期低温	-55°C ± 2°C, 1000H, 静置 1H 后测试阻值	$\Delta R \leq \pm (1.0\% + 0.05\text{m}\Omega)$
冷热冲击	-55°C (30 分钟) - 常温 (5 分钟) - 155°C (30 分钟) 5 个循环	$\Delta R \leq \pm (1.0\% + 0.05\text{m}\Omega)$
长期耐久	70°C ± 2°C, 1000 小时, 额定电压或元件极限电压 (取较小值), 通 1.5 小时/断 0.5 小时	$\Delta R \leq \pm (1.0\% + 0.05\text{m}\Omega)$
长期耐湿	40°C ± 2°C, 95% ± 3%RH, 1000 小时, 额定电压或元 件极限电压(取较小值), 通 1.5 小时/断 0.5 小时.	$\Delta R \leq \pm (1.0\% + 0.05\text{m}\Omega)$

8. 回流焊条件:



峰值 : 250+5/-0 °C, 5 s,
 预热区: 150~180°C, 90±30 s,
 焊接区 : 230°C或更高, 30±10 s

9. 焊板尺寸:

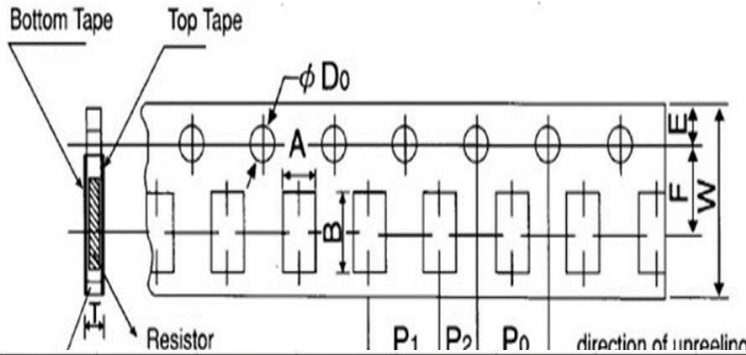


产品别	Pattern 尺寸 mm		
	A	B	C
ARC-1206	1.6	1.75	2.1

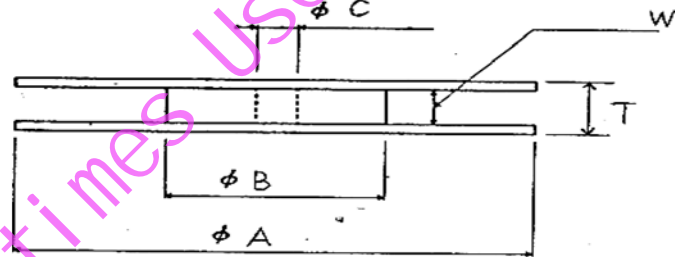
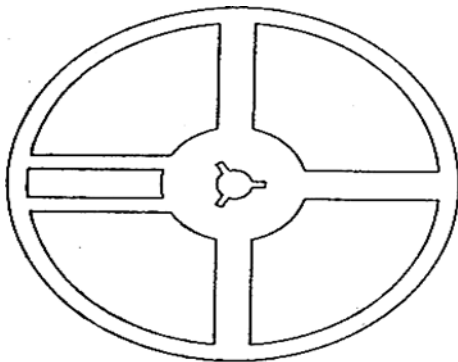
UNLESS OTHERWISE SPECIFIED TOLERANCES ON : X = ± X.X = ± X.XX = ± ANGLES ± HOLE DIA. ±	DRAWN BY :		深圳市通盛时代科技有限公司 SHENZHEN TONGSHENG TIMES TECHNOLOGY CO., LTD	
	DESIGNED BY :			
	CHECKED BY :		THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF FENCEN CO., LTD. AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION	
	APPROVED BY :			
	SCALE : X	UNIT : X		
TITLE : The Engineering Specification for Current sensing resistor	DOCUMENT NO.	ARC-	PAGE REV. A0	

10. 包装

● 载带尺寸



Packing	Type	A	B	W	F	E	P ₁	P ₂	P ₀	D ₀	T
Paper Tape	ARC 1206	2.0±0.15	3.6±0.2	8.0±0.2	3.5±0.05	1.75±0.1	4.0±0.1	2.0±0.05	4.0±0.05	ψ 1.5 (+0.1/-0)	0.84±0.1



系列	A mm	B mm	C mm	W mm	T mm
ARC1206	178±2.0	60±1.0	13.0±1.0	9.0±1.0	11.5±1.0

UNLESS OTHERWISE SPECIFIED
TOLERANCES ON :
X = ±
X.X = ±
X.XX = ±
ANGLES ± HOLE DIA. ±

DRAWN BY :
DESIGNED BY :
CHECKED BY :
APPROVED BY :
SCALE : X UNIT : X

深圳市通盛时代科技有限公司
SHENZHEN TONGSHENG TIMES TECHNOLOGY CO., LTD

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF FENCEN CO., LTD.
AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE
MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

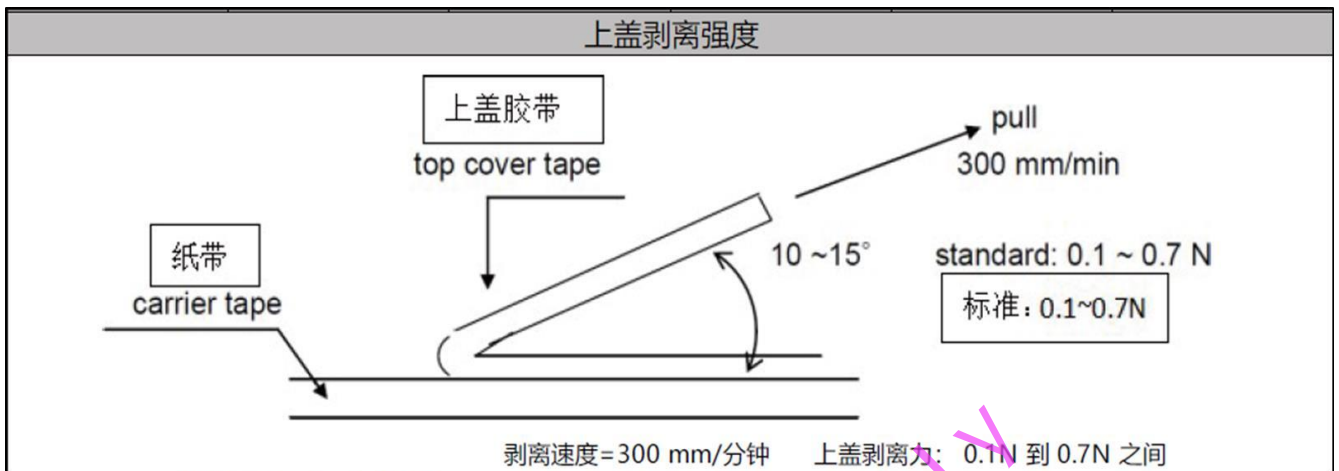
TITLE : The Engineering Specification for
Current sensing resistor

DOCUMENT
NO.

ARC-

PAGE
REV.
A0

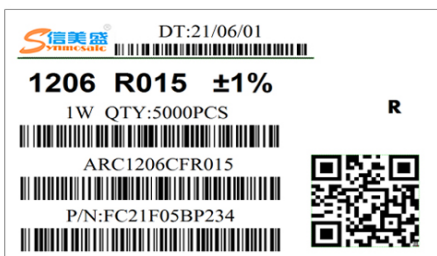
● 拉力测试规格



● 包装数量

5000pcs/卷

● 标签



包含：阻值、功率、精度、数量、流水号

11. 注意事项

1. 储存注意事项

1. 储存时应注意温度和湿度 (温度 5~35℃, 相对湿度 45~75% RH). 湿度尽可能保持在低范围内.
2. 不能阳光直射.
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).

4. 保存期限: 2 年

2. 操作使用注意事项

1. 避免采用超过正常额定功率, 超过额定功率的稳能负载条件下可能会对产品性能和可靠性造成 负面影响.
2. 用镊子拿起产品时要小心, 有可能会将保护层或电阻体夹碎.
3. 手动安装产品时, 烙铁头勿触碰产品.

UNLESS OTHERWISE SPECIFIED TOLERANCES ON : X = ± X.X = ± X.XX = ± ANGLES ± HOLE DIA. ±	DRAWN BY :		深圳市通盛时代科技有限公司 SHENZHEN TONGSHENG TIMES TECHNOIOGY CO., LTD			
	DESIGNED BY :					
	CHECKED BY :		THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF FENCEN CO., LTD. AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION			
	APPROVED BY :					
SCALE : X		UNIT : X		DOCUMENT NO.	ARC-	PAGE REV. A0
TITLE : The Engineering Specification for Current sensing resistor						