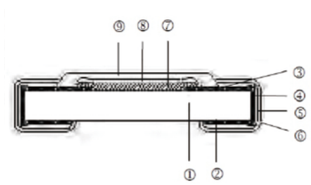
厚膜贴片排阻–凸式（CAV）Chip Resistor Arrays（convex）

■ Resume 摘要

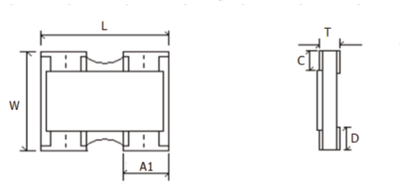
Small size and light weight/Reduction of assembly costs and matching with placement machines/ Reliability,high quality/Suitable for both IR reflow soldering and wave soldering.
体积小，重量轻，组装成本低，与贴片机配套，可靠度高，质量好，红外回流焊和回流焊均适合。

■ Construction 结构图

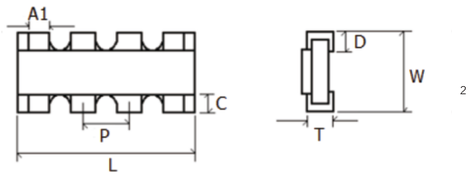


① Alumina Substrate 陶瓷基板(氧化铝基板)
② Bottom Electrode(Ag) 下导电极(银)
③ Top Electrode(Ag–Pd) 上导电极 (银–钯)
④ Edge Electrode(NiCr) 侧导电极 (镍–铬)
⑤ Barrier Layer(Ni) 电镀介质层(镍)
⑥ External Electrode(Sn) 外部端电极(锡)
⑦ Resistor Layer(RuO_2/Ag) 电阻层(氧化钌/银)
⑧ Primary Overcoat(Glass) 基层密封层(玻璃)
⑨ Secondary Overcoat(Epoxy) 第二层密封层(树脂)

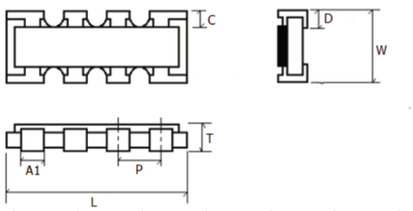
■ Dimensions 尺寸



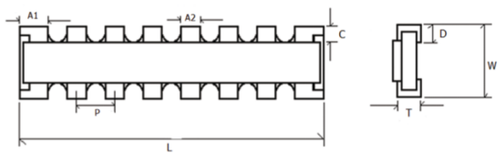
4P2R（0402）



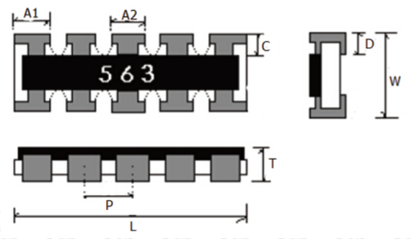
8P4R(0603)



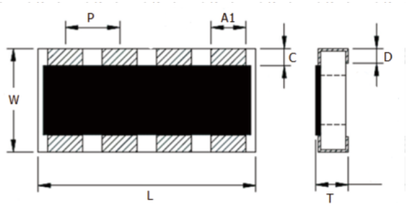
8P4R（0402）



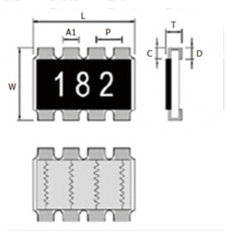
16P8R



10P8R



8P4R(0201)



8P4R（1206）

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Unit：mm

Size规格	L	W	A1	A2	P	C	D	T
8P4R(0201)	1.40±0.10	0.60±0.10	0.20±0.10	/	0.40±0.10	0.10±0.07	0.15±0.05	0.35±0.10
4P2R(0402)	1.00±0.10	1.00±0.10	0.33±0.10	/	0.65±0.05	0.17±0.10	0.25±0.10	0.35±0.10
8P4R(0402)	2.00±0.10	1.00±0.10	0.30±0.05	/	0.50±0.05	0.20±0.15	0.30±0.15	0.45±0.10
8P4R(0603)	3.20±0.20	1.60±0.20	0.50±0.15	/	0.80±0.10	0.30±0.15	0.30±0.15	0.50±0.10
16P8R	4.00±0.20	1.60±0.15	0.45±0.05	0.30±0.05	0.50±0.05	0.30±0.15	0.40±0.15	0.45±0.10
10P8R	3.20±0.20	1.60±0.15	0.50±0.05	0.35±0.05	0.64±0.05	0.40±0.10	0.30±0.15	0.55±0.10
8P4R(1206)	5.10±0.20	3.10±0.20	0.90±0.10	/	1.30±0.20	0.55±0.15	0.55±0.15	0.55±0.15

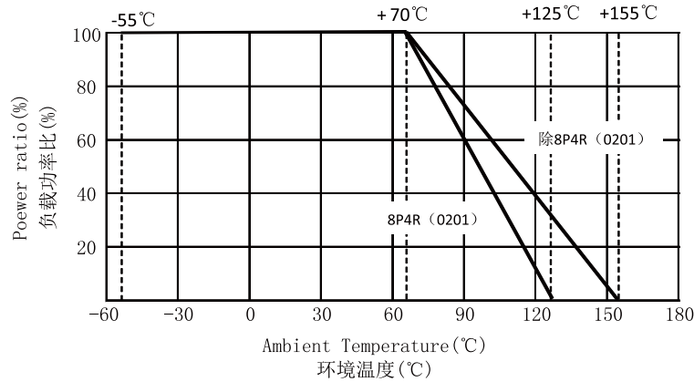
■ Part Numbering 型号名称

CAV	8P4R(0201)	L182	J	T
Product Type 产品类型	Resistor Size 电阻规格	Resistance 阻值	Resistance Tolerance 阻值公差	Packing Code 包装形式
CAV	8P4R（0201） 8P4R(0402) 8P4R(0603) 8P4R（1206） 4P2R(0402) 16P8R 10P8R	±5% L182:1.8KΩ L1R3:1.3 Ω ±1% L1801:1.8KΩ L1R30:1.3 Ω	F=±1% J=± 5%	T: Taping Reel 卷装 B: Bulk 散装

■ Standard Electrical Specifications 标准规格表

Item 项目 / Type 型号	Power Rating 额定功率	Operating Temp. Range 操作温度范围	Max. Operating Voltage 最大工作电压	Max. Overload Voltage 最大负载电压	Resistance Range 阻值范围		TCR 温度系数 (PPM/℃)
					±1%	±5%	
8P4R(0201)	1/32W	-55~125℃	12.5V	25V	10Ω~1MΩ		±200
4P2R(0402)	1/16W	-55~155℃	50V	100V	10Ω~1MΩ		±200
8P4R(0402)	1/16W	-55~155℃	50V	100V	10Ω~1MΩ		±200
8P4R(0603)	1/16W	-55~155℃	50V	100V	10Ω~1MΩ	1Ω~1MΩ	<10Ω:±400 ≥10Ω:±200
16P8R	1/16W	-55~155℃	50V	100V	1Ω~1MΩ		〈10Ω:±400 ≥10Ω:±200
10P8R	1/32W	-55~155℃	25V	50V	10Ω~1MΩ		±200
8P4R(1206)	1/4W	-55~155℃	200V	400V	1Ω~9.9Ω		0~+400
					10Ω~1MΩ		±200

■ Derating Curve 功率衰减曲线图



■ Environmental Characteristics 信赖性试验项目

Item 项目	Requirement 条件			Test Method 测试方法
	±1%	±5%	Jumper 跳线	
Temperature Coefficient of Resistance(T.C.R.) 温度系数(T.C.R.)	As Spec. 参考规格表			-55℃~+125℃，25℃ is the reference temperature 参考温度
Short Time Overload 短时间过负载	±(1.0%+0.05Ω)	±(2.0%+0.05Ω)	<50mΩ	RCWV*2.5 or Max.Overload voltage whichever is lower for 5 seconds,2 seconds for high power series 额定电压的2.5倍或最大负载电压5秒，提升功率系列2秒
Insulation Resistance 绝缘阻抗	≥10G			Max.Overload voltage for 1 minute 施加最大负载电压1分钟
Endurance 负载寿命	±(2.0%+0.10Ω)	±(3.0%+0.10Ω)	<50mΩ	70±2℃,RCWV for 1000 hrs with 1.5 hrs"ON" and 0.5 hrs "OFF" 70±2℃温度中施加额定电压,1.5 小时"开", 0.5小时 "关",共1000小时
Damp Heat with Load 耐湿负荷	±(2.0%+0.10Ω)	±(3.0%+0.10Ω)	<50mΩ	40±2℃,90~95%R.H.,RCWV for 1000 hrs with 1.5 hrs"ON" and 0.5 hrs "OFF" 在温度40±2℃,相对湿度90~95%环境中施加额定电压, 1.5 小时"开", 0.5小时 "关",共1000小时
Dry Heat 耐热性试验	±(1.0%+0.05Ω)	±(1.5%+0.10Ω)	<50mΩ	at +125/+155℃ for 1000hrs 置于+125/+155℃ 温度中，共1000小时
Bending Strength 弯折强度测试	±(1.0%+0.05Ω)	±(1.0%+0.05Ω)	<50mΩ	Bending once for 5 seconds with 3mm 产品焊在测试板上,中央施力下压5秒 下压深度: 3毫米
Solderability 焊锡性	95% min. coverage 导体爬锡面积大于95%			245±5℃ for 3 seconds 245±5℃锡炉中,持续3秒
Resistance to Soldering Heat 抗焊锡热	±(0.5%+0.05Ω)	±(1.0%+0.05Ω)	<50mΩ	260±5℃ for 10 seconds 260±5℃锡炉中,持续10 秒
Voltage Proof 耐电压	No breakdown or flashover 无击穿或跳火现象			1.42 times Max.Operating Voltage for 1 minute 最大操作电压*1.42倍, 持续1分钟
Leaching 溶蚀测试	Individual leaching area≤5% Total leaching area≤10% 导体各面溶蚀区域≤5% 导体总面积溶蚀区域≤10%			260±5℃ for 30 seconds 260±5℃锡炉中,持续30秒
Rapid Change of Temperature 冷热冲击	±(0.5%+0.05Ω)	±(1.0%+0.05Ω)	<50mΩ	-55℃ to+155℃ 5 cycles -55℃ to+155℃ 5 次

Operating Voltage=√(P*R) or Max.Operating Voltage listed above,whichever is lower.
Overload Voltage=2.5*√(P*R) or Max.Overload Voltage listed above,whichever is lower.
RCWV(Rated Continuous Working Voltage)=√(P*R) or Max. Operating Voltage whichever is lower.
Storage Temperature:25±3℃; Humidity<80%RH
Reference Standards:IEC 60115-1,60068-2-58;JIS-C 5201-1

■RCWV(额定持续工作电压)=√(P*R) 或者较小的最大操作电压.
操作电压=√(P*R) , 过负载电压=2.5*√(P*R) ,操作电流=√(P/R)
■储存温度:25±3℃; 湿度<80%RH
■依据标准:IEC 60115-1,60068-2-58;JIS-C 5201-1

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