

规格书

SPECIFICATION FOR APPROVAL

产品名称: 厚膜贴片排阻--凸式 CAV 系列

产品规格: 全系列

制作	核准	审核
马鑫	胡梓秋	方齐炜

供应商: 深圳市美隆电子有限公司

地址: 深圳市福田区华强北路华强广场 A 座 16 楼

TEL: 0755-82533555

FAX: 0755-82533444

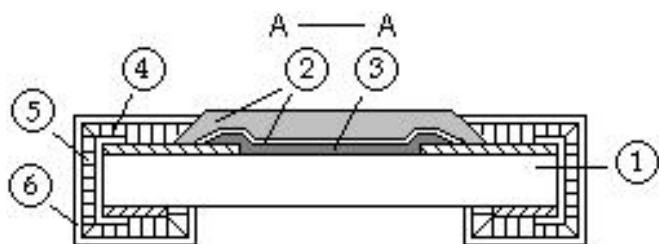
| 厚膜贴片排阻--凸式 CAV 系列

摘要 Resume >>>

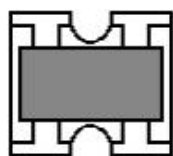
- Small size and light weight
- Reduction of assembly costs
- matching with placement machines
- Reliability, high quality
- Suitable for both reflow soldering and wave soldering

体积小重量轻
降低装配成本
与贴片机配套
可靠度高
适用于回流焊和波峰焊

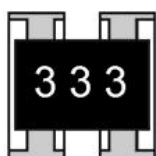
结构图 Construction >>>



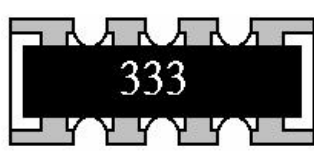
1	High purity alumina substrate	4	Termination (inner) Ag/Pd
2	Protective covering	5	Termination (between) Ni plating
3	Resistive covering	6	Termination (outer) Sn plating



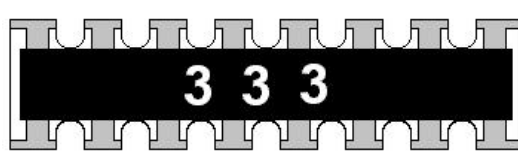
4P2R(0402 1%/5%)



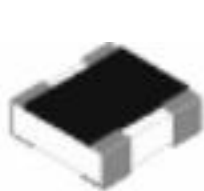
4P2R(0603 5%)



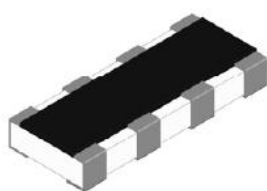
8P4R(0603/0402 5%)



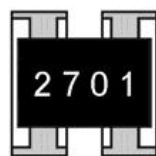
16P8R 5%



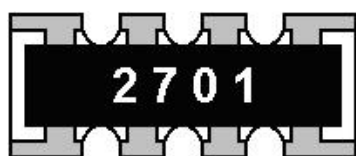
4P2R(0201 1%/5%)



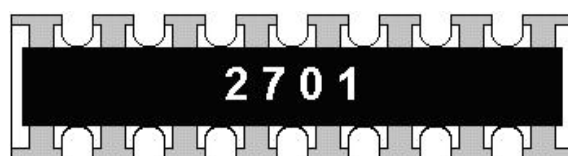
8P4R(0201 1%/5%)



4P2R(0603 1%)



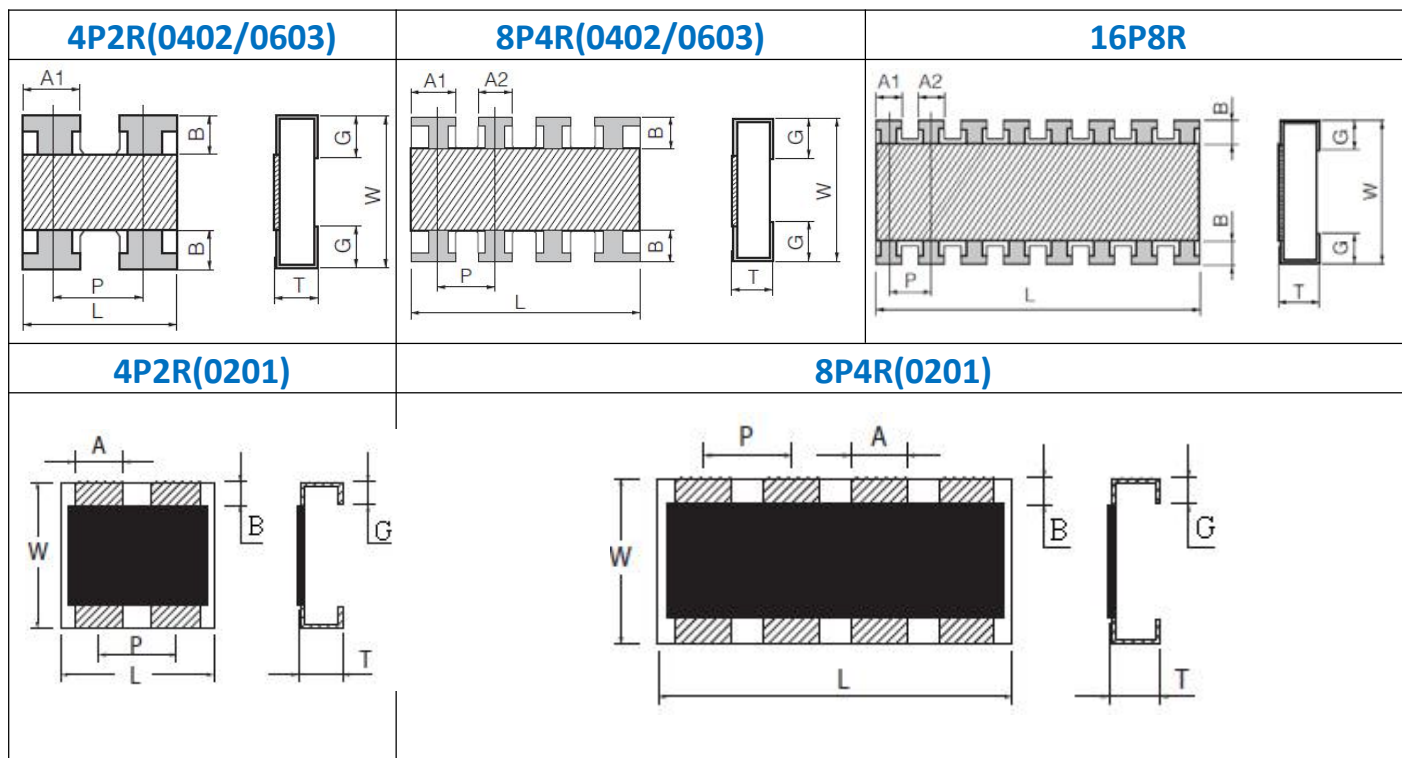
8P4R(0603/0402 1%)



16P8R 1%

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尺寸 Dimensions >>>-----



Size 规格	L	W	T	A1	A2	B	P	G
4P2R(0201)	0.80±0.10	0.60±0.10	0.35±0.10	0.30±0.10	/	0.15±0.10	0.50±0.05	0.15±0.10
8P4R(0201)	1.40±0.10	0.60±0.10	0.35±0.10	0.20±0.10	/	0.15±0.10	0.40±0.05	0.15±0.10
4P2R(0402)	1.00±0.10	1.00±0.10	0.35±0.10	0.33±0.10	/	0.15±0.05	0.65±0.05	0.25±0.10
8P4R(0402)	2.00±0.10	1.00±0.10	0.45±0.10	0.40±0.05	0.30±0.05	0.20±0.15	0.50±0.05	0.30±0.15
4P2R(0603)	1.60±0.15	1.60±0.15	0.50±0.10	0.60±0.15	/	0.30±0.10	0.80±0.05	0.25±0.10
8P4R(0603)	3.20±0.20	1.60±0.20	0.50±0.10	0.65±0.15	0.50±0.15	0.30±0.15	0.80±0.10	0.30±0.15
16P8R	4.00±0.20	1.60±0.15	0.45±0.10	0.45±0.05	0.30±0.05	0.30±0.15	0.50±0.05	0.40±0.15

型号名称 Part Numbering >>>-----

CAV	8P4R(0603)	L182	J	T	X*
Product Type 产品型号	Resistor Size 电阻规格	Resistance 阻值	Resistance Tolerance 阻值公差	Packing Code 包装形式	High Power 升功率
CAV : 厚膜贴片排阻--凸式	4P2R(0201) 4P2R(0402) 4P2R(0603) 8P4R(0201) 8P4R(0402) 8P4R(0603) 16P8R	±5% L182 : 1.8KΩ L1R3 : 1.3 Ω ±1% L1801 : 1.8KΩ L1R30 : 1.3 Ω	F=±1% J=±5%	T:Taping Reel T: 编带 B: Bulk B: 散装	X:1/10W

◆X* : High Power 升功率 (非升功率不加备注)

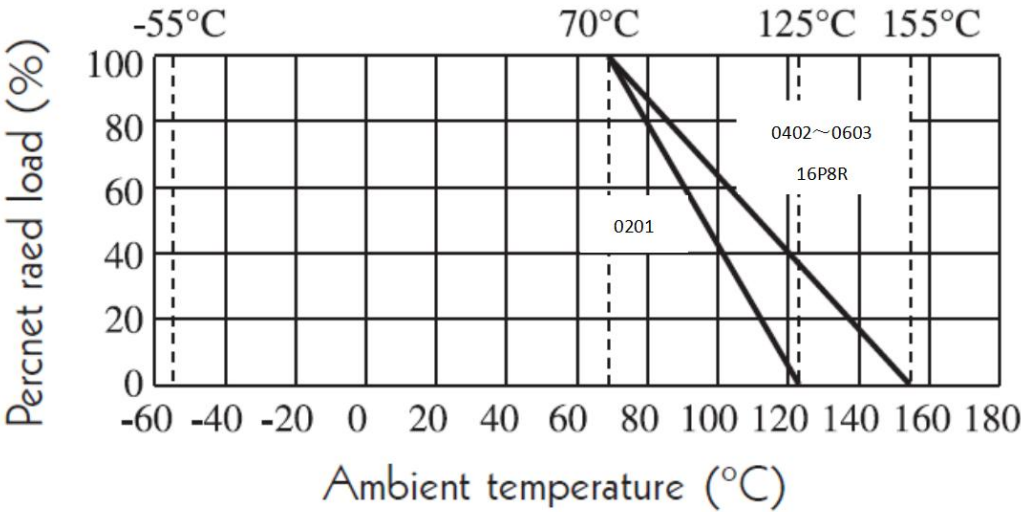
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标准规格表 Stand Electrical Specifications>>>-----

Item Type 项目 型号	Power Rating 额定功率	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/°C)
				±1%	±5%	
4P2R(0201)	1/20W	12.5V	25V	10Ω~1MΩ	10Ω~1MΩ	±200
8P4R(0201)	1/20W	12.5V	25V	10Ω~1MΩ	10Ω~1MΩ	±200
4P2R(0402)	1/16W	50V	100V	10Ω~1MΩ	10Ω~1MΩ	±200
8P4R(0402)	1/16W	50V	100V	10Ω~1MΩ	10Ω~1MΩ	±200
4P2R(0603)	1/16W	50V	100V	10Ω~1MΩ	10Ω~1MΩ	±200
8P4R(0603)	1/16W	50V	100V	1Ω~1MΩ	1Ω~1MΩ	≥10Ω:±200 < 10Ω:±400
8P4R(0603)	1/10W	50V	100V	1Ω~1MΩ	1Ω~1MΩ	≥10Ω:±200 < 10Ω:±400
16P8R	1/16W	50V	100V	1Ω~1MΩ	1Ω~1MΩ	≥10Ω:±200 < 10Ω:±400

◆Operating Temp.Range 操作温度范围：0201：-55℃~+125℃ 0402~0603：-55℃~+155℃

功率衰减曲线图 Derating Curve>>>-----



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信赖性试验项目 Environmental Characteristics >>>-----

Item 项目	Requirement 条件		Test Method 测试方法
	其他	4P2R(0201)	
Temperature Coefficient (T.C.R.) 温度系数(T.C.R.)	As Spec. 参考规格表		At 25 / -55℃ and 25℃ /+125℃, 25℃ is the reference temperature 25℃为参考温度
Short Time Overload 短时间过负载	±(2.0%+0.1Ω)	1%:±1.0%+0.05Ω 5%:±2.0%+0.05Ω	RCWV*2.5 or Max.Overload voltage whichever is lower for 5 seconds 额定电压的 2.5 倍或最大负载电压 5 秒
Insulation Resistor 绝缘阻抗	≥1G		measured with a direct voltage of (100±15)V or a voltage equal to the dielectric withstanding voltage., and apply for 1min 测量电压应使用 (100±15)V 的直流电压或等于耐压电压的电压进行测量, 并施加 1 分钟。
Bending Strength 弯折强度测试	±(1.0%+0.05Ω)		Twist of test board: Y/x = 3/90 mm for 60Seconds Y/x = 3/90 mm, 持续 60 秒
Resistance to Soldering Heat 抗焊接热	±(1.0%+0.05Ω)		260±5℃ for 10 seconds 260±5℃锡炉中, 持续 10 秒
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
Rapid change of temperature 温度循环	±(1.0%±0.05Ω)	1%:±0.5%+0.05Ω 5%:±1.0%±0.05Ω	30 min at lower limit temperature and 30 min at upper limit temperature, 100 cycles. 下限温度下 30 min, 上限温度下 30 min, 100 次循环。
Operational Life 工作寿命	±(3.0%±0.1Ω)	1%:±2.0%+0.1Ω 5%:±3.0%±0.1Ω	70±2℃,RCWV for 1000hrs with 1.5hrs"ON"and 0.5hrs"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	±(3.0%±0.1Ω)	1%:±2.0%+0.1Ω 5%:±3.0%±0.1Ω	40±2℃,90~95%R.H.,RCWV for 1000hrs with 1.5hrs"ON" and 0.5hrs"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 高温存储	±(3.0%±0.1Ω)	1%:±2.0%+0.1Ω 5%:±3.0%±0.1Ω	Upper limit temperature, for 1000H. 上限温度, 持续 1000 小时。
Low Temperature Storage 低温储存	±(3.0%±0.1Ω)	1%:±2.0%+0.1Ω 5%:±3.0%±0.1Ω	Lower limit temperature, for 2H. 下限温度, 持续 2 小时。
Leaching 溶蚀测试	No visible damage 无可见损伤		260±5℃ for 30 seconds 260±5℃锡炉中, 持续 30 秒

Operating Voltage= $\sqrt{P \cdot R}$ or Max.Operating Voltage listed above,whichever is lower.

Overload Voltage= $2.5 \cdot \sqrt{P \cdot R}$ or Max.Overload Voltage listed above,whichever is lower.

RCWV(Rated Continuous Working Voltage)= $\sqrt{P \cdot R}$ or Max.Operating Voltage whichever is lower.

environmental conditions for electrical performance measurement, Temperature : 25℃±5℃ Humidity: 25%~75%RH

Reference Standards:IEC 60115-1,60068-2-58 ; JIS-C 5201-1

■RCWV(额定持续工作电压)= $\sqrt{P \cdot R}$ 或者较小的最大操作电压.

操作电压= $\sqrt{P \cdot R}$,过负载电压= $2.5 \cdot \sqrt{P \cdot R}$,操作电流= $\sqrt{P/R}$

■电性能测量的环境条件: 温度: 25℃±5℃ 相对湿度: 25%~75%RH

■依据标准: IEC 60115-1,60068-2-58 ; JIS-C 5201-1