

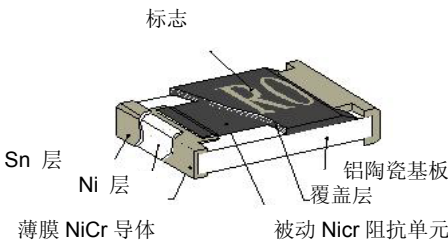
nage 薄膜高精度贴片电阻—AL 系列



特征

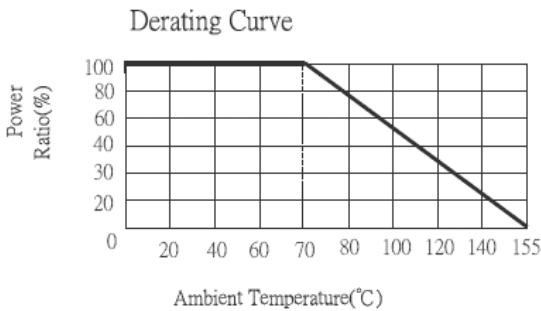
- 薄膜被堵 NiCr 电阻
- 高紧凑上差 $\pm 0.01\% \sim 1\%$
- 抵温漂 $\pm 5 \sim \pm 50 \text{ PPM}/^\circ\text{C}$
- 宽阻值范围

结构



应用

- 医疗设备
- 测试/测量设备
- 消费产品
- 打印设备
- 自动化设备控制器
- 转换器
- 通讯设备、手提电话、Cell phone, GPS, PDA



元件编号

AR03TD1000

124567

①产品类型

产品类型	
AR	薄膜高精度贴片电阻

②尺寸

代号	尺寸	EIA
AR02	1.00×0.50mm	0402
AR03	1.60×0.80mm	0603
AR05	2.00×1.25mm	0805
AR06	3.00×1.50mm	1206
AR10	4.90×2.40mm	2010
AR12	6.30×3.10mm	2512

③阻抗差

代号	阻抗差
T	$\pm 0.01\%$
B	$\pm 0.10\%$
C	$\pm 0.25\%$
D	$\pm 0.50\%$
F	$\pm 1.00\%$

④包装

代号	类别
T	Taping Reel
B	Bulk

⑤温度系数

代号	类别
S	$\pm 5 \text{ PPM}/^\circ\text{C}$
B	$\pm 10 \text{ PPM}/^\circ\text{C}$
N	$\pm 15 \text{ PPM}/^\circ\text{C}$
C	$\pm 25 \text{ PPM}/^\circ\text{C}$
D	$\pm 50 \text{ PPM}/^\circ\text{C}$

⑥大功率

代号	功率
	Standard / Special
V	1/4W
W	1/8W
X	1/10W

⑦阻值

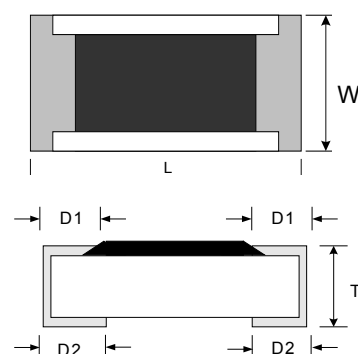
代号	类别
1000	100Ω
2201	2200Ω
1002	10000Ω
4992	49900Ω
1003	100000Ω



尺寸

Unit: mm

Codes	L	W	T	D1	D2
AR02	1.00±0.05	0.50±0.05	0.30±0.05	0.20±0.10	0.20±0.10
AR03	1.55±0.10	0.80±0.10	0.45±0.10	0.30±0.20	0.30±0.20
AR05	2.00±0.15	1.25±0.15	0.55±0.10	0.30±0.20	0.40±0.25
AR06	3.05±0.15	1.55±0.15	0.55±0.10	0.42±0.20	0.35±0.25
AR10	4.90±0.15	2.40±0.15	0.55±0.10	0.60±0.30	0.50±0.25
AR12	6.30±0.15	3.10±0.15	0.55±0.10	0.60±0.30	0.50±0.25



标准电器特性

项目 类别	70℃功率	工作温度范围	最大工作电压	最大过载电压	抗阻上差	阻值范围	温度系数 (±PPM/℃)
AR02 (0402)	1/16W	-55 ~ +155℃	25V	50V	0.01%,0.05%,0.1%, 0.25%,0.5%	50Ω~2KΩ	5
					0.01%,0.05%,0.1%, 0.25%,0.5%	50Ω~12KΩ	10 , 15
					0.01% ,0.05%	50Ω~12KΩ	25 , 50
					0.1%, 0.25%, 0.5% , 1%	10Ω~100KΩ	25 , 50
AR03 (0603)	1/16W	-55 ~ +155℃	50V	100V	0.01%,0.05%,0.1%, 0.25%,0.5%	50Ω~8KΩ	5
					0.01%,0.05%,0.1%, 0.25%,0.5%	25Ω~100KΩ	10 , 15
					0.01%	25Ω~100KΩ	25 , 50
					0.05%	4.7Ω~150KΩ	25 , 50
					0.1%, 0.25%, 0.5% , 1%	4.7Ω~402KΩ	25 , 50
					0.25% 0.5% 1%	2Ω~4.6Ω	25 , 50
AR05 (0805)	1/10W	-55 ~ +155℃	100V	200V	0.01%,0.05%,0.1%, 0.25%,0.5%	50Ω~16KΩ	5
					0.01%,0.05%,0.1%, 0.25%,0.5%	25Ω~200KΩ	10 , 15
					0.01%	25Ω~200KΩ	25 , 50
					0.05%	4.7Ω~500KΩ	25 , 50
					0.1%, 0.25%, 0.5% , 1%	4.7Ω~1MΩ	25 , 50
					0.25% 0.5% 1%	1Ω~4.6Ω	25 , 50
AR06 (1206)	1/8W	-55 ~ +155℃	150V	300V	0.01%,0.05%,0.1%, 0.25%,0.5%	50Ω~30KΩ	5
					0.01%,0.05%,0.1%, 0.25%,0.5%	25Ω~500KΩ	10 , 15
					0.01%	25Ω~500KΩ	25 , 50
					0.05%	4.7Ω~1MΩ	25 , 50
					0.1%, 0.25%, 0.5% , 1%	4.7Ω~1MΩ	25 , 50
					0.25% 0.5% 1%	1Ω~4.6Ω 1MΩ~2MΩ	25 , 50
AR10 (2010)	1/4W	-55 ~ +155℃	150V	300V	0.01%,0.05%,0.1%, 0.25%,0.5%	50Ω~30KΩ	5
					0.01%,0.05%,0.1%, 0.25%,0.5%	25Ω~500KΩ	10 , 15
					0.01%	25Ω~500KΩ	25 , 50
					0.05%	4.7Ω~1MΩ	25 , 50
					0.1%, 0.25%, 0.5% , 1%	4.7Ω~1MΩ	25 , 50
					0.25% 0.5% 1%	1Ω~4.6Ω 1MΩ~2MΩ	25 , 50
AR12 (2512)	1/2W	-55 ~ +155℃	150V	300V	0.01%,0.05%,0.1%, 0.25%,0.5%	50Ω~50KΩ	5
					0.01%,0.05%,0.1%, 0.25%,0.5%	25Ω~500KΩ	10 , 15
					0.01%	25Ω~500KΩ	25 , 50
					0.05%	4.7Ω~1MΩ	25 , 50
					0.1%, 0.25%, 0.5% , 1%	4.7Ω~1MΩ	25 , 50
					0.25% 0.5% 1%	1Ω~4.6Ω 1MΩ~2MΩ	25 , 50

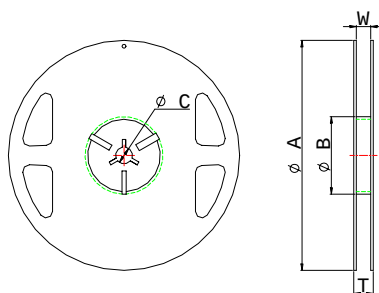
* Viking 能够根据客户要求制作一下选项。

高功率电器特性

项目 类别	70℃功率	工作温度范围	最大工作电压	最大过载电压	抗阻上差	阻值范围	温度系数 (±PPM/℃)
AR03 (0603)	1/10W	-55 ~ +155℃	50V	100V	±0.10% ±0.25% ±0.50%	10Ω~332KΩ	±25 ±50
AR05 (0805)	1/8W	-55 ~ +155℃	150V	300V	±0.10% ±0.25% ±0.50%	4.7Ω~1MΩ	±25 ±50
AR06 (1206)	1/4W	-55 ~ +155℃	200V	400V	±0.10% ±0.25% ±0.50%	4.7Ω~1MΩ	±25 ±50

包装

包装数量和包装说明

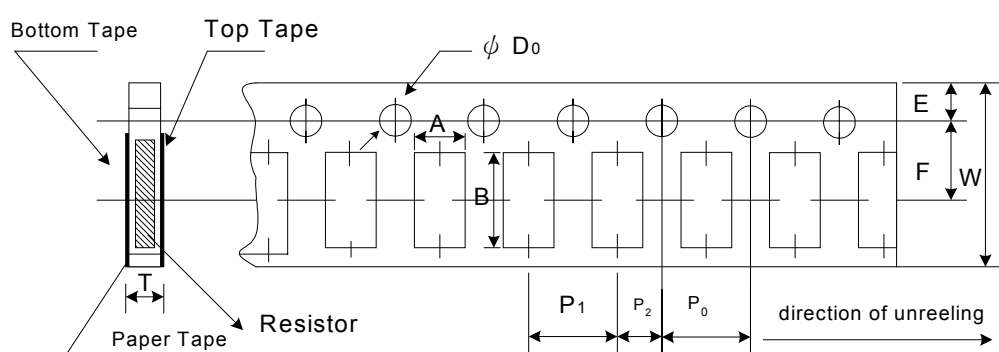


Unit: mm

Codes	ΦA	ΦB	ΦC	W	T	Paper Tape (EA)	Emboss Plastic Tape (EA)
AR02	178±1	60.0±0.5	13.0±0.20	9.00±0.50	12.0±0.15	10,000	-
AR03	178±1	60.0±0.5	13.0±0.20	9.00±0.50	12.0±0.15	5,000	-
AR05	178±1	60.0±0.5	13.0±0.20	9.00±0.50	12.0±0.15	5,000	-
AR06	178±1	60.0±0.5	13.0±0.20	9.00±0.50	12.0±0.15	5,000	-
AR10	178±1	60.2±0.5	13.0±1.00	13.2±1.50	16.0±0.20	-	4,000
AR12	178±1	60.2±0.5	13.0±0.50	13.2±1.50	16.0±0.20	-	4,000

包装

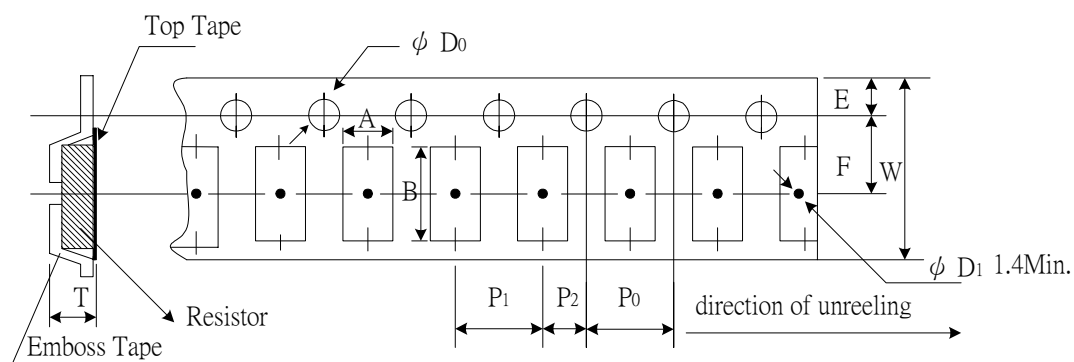
纸带说明



Unit: mm

代号	A	B	W	E	F	P0	P1	P2	ΦD0	T
AR02	0.70±0.05	1.16±0.05	8.00±0.10	1.75±0.05	3.5±0.05	4.00±0.10	2.00±0.05	2.00±0.05	1.55±0.05	0.40±0.03
AR03	1.10±0.05	1.90±0.05	8.00±0.10	1.75±0.05	3.5±0.05	4.00±0.10	4.00±0.10	2.00±0.05	1.55±0.05	0.60±0.03
AR05	1.60±0.05	2.37±0.05	8.00±0.10	1.75±0.05	3.5±0.05	4.00±0.10	4.00±0.10	2.00±0.05	1.55±0.05	0.75±0.05
AR06	2.00±0.05	3.55±0.05	8.00±0.10	1.75±0.05	3.5±0.05	4.00±0.10	4.00±0.10	2.00±0.05	1.55±0.05	0.75±0.05

Emboss Plastic Tape Specifications



**Viking**

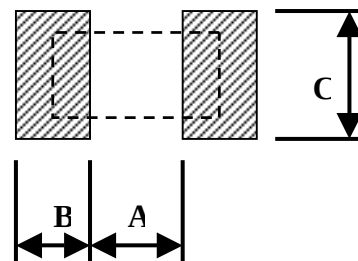
Unit: mm

Codes	A	B	W	E	F	P ₀	P ₁	P ₂	ΦD ₀	T
AR10	2.85±0.10	5.45±0.10	12.0±0.10	1.75±0.10	5.5±0.05	4.00±0.05	4.00±0.10	2.00±0.05	1.50+0.10	1.00±0.20
AR12	3.40±0.10	6.65±0.10	12.0±0.10	1.75±0.10	5.5±0.05	4.00±0.05	4.00±0.10	2.00±0.05	1.50+0.10	1.00±0.20

推荐模式

Unit : mm

Codes	A	B	C
AR12	4.90	1.60	3.10±0.2
AR10	3.60	1.40	2.50±0.2
AR06	2.00	1.15	1.70±0.2
AR05	1.00	1.00	1.35±0.2
AR03	0.80	1.00	0.90±0.2
AR02	0.50	0.50	0.60±0.2





环境特性

测试项目	说明		测试方法
	Tol. ≤0.05%	Tol.>0.05%	
电阻的湿度系数	根据说明		MIL-STD-202F Method 304 +25/-55/+25/+125/+25℃
短时过载	ΔR±0.05%	ΔR±0.5%	JIS-C-5202-5.5 RCWV*2.5 or Max Overloading Voltage , 5 seconds
	ΔR±0.5% for high power rating		
对向电气承受电压	By type		MIL-STD-202F Method 301 Apply Max Overload Voltage for 1 minute
绝缘阻抗	>1000MΩ		MIL-STD-202F Method 302 Apply 100V _{DC} for 1 minute
温震	ΔR±0.05%	ΔR±0.25%	MIL-STD-202F Method 107G -55℃~150℃,100 cycles
加载寿命	ΔR±0.05%	ΔR±0.2%	MIL-STD-202F Method 108A RCWV , 70℃ , 1.5 hours ON , 0.5 hours OFF, total 1000~1048 hours
	>7kΩ ΔR±0.5%		
	ΔR±0.5% for high power rating		
温度（稳定状态）	ΔR±0.05%	ΔR±0.3%	MIL-STD-202F Method 103B 40℃ , 90~95%RH,RCWV 1.5 hours ON,0.5 hours OFF, total 1000~1048 hours
	ΔR±0.5% for high power rating		
干燥热环境下的阻值	ΔR±0.05%	ΔR±0.2%	JIS-C-5202-7.2 96 hours @ +155℃ without load
低温工作	ΔR±0.05%	ΔR±0.2%	JIS-C-5202-7.1 1 hours,-65℃,followed by 45minutes of RCWV
	ΔR±0.5% for high power rating		
弯曲力	ΔR±0.05%	ΔR±0.2%	JIS-C-5202-6.1.4 Bending Amplitude 3mm for 10 seconds
焊接稳定性	95%min coverage		MIL-STD-202F Method 208H 235℃±5℃ , 2±0.5 (sec)
焊接热对阻值的影响	ΔR±0.05%	ΔR±0.2%	MIL-STD-202F Method 210E 260±5℃ , 10±1 seconds

* 储存温度 :25 $\pm 3^\circ\text{C}$; 湿度 <80%RH