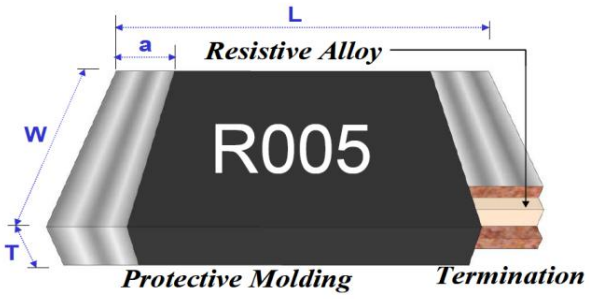
1. 特征/ Features:
   超低阻值、高精度/ Low Resistance and High Accuracy Resistor for Current Detection
   可大电极设计/ Large Electrode (All series)
   更好的散热能力/ Good Performance for Heat Dissipation
   环保符合/ Pb-free to Meet RoHS Requirements

2. 应用/ Applications:
   电源管理/ Power Management Applications
   开关电源/ Switching Power Supply
   直流转换/ DC-DC Converter, 电池保护板/ Battery Pack, 充电器/ Charger, 适配器/ Adaptor
   便携式仪器设备/Portable Instruments (PDA and Cell Phone)
   电压调节模块/ Voltage Regulation Module (VRM)

3. 编码规则/ Type Designation:

ARC	K	12	F	1	R001
品名 P/N	材料 Material	尺寸代码 Size Code	电阻值误差 R tolerance	额定功率 Power Rating	电阻值 Resistanc
纯合金贴片式电流取样电阻 CSR	K: Kama Alloy M:MnCu Alloy	12:1206 25:2512	F:±1% G:±2% J:±5%	S:0.5w 1:1w 2:2W 3:3W	R005:5mΩ R001:1mΩ R1m5:1.5mΩ

4. 尺寸/ Dimensions:



Type	R(mΩ)	L	W	A	T
1206	1-200	3.2±0.2	1.6±0.2	0.5±0.2	0.7±0.15
2512	1-500	6.4±0.2	3.2±0.2	0.95±0.25	0.9±0.2

5. 降额曲线/ Derating Curve ：
如工作环境温度超过 70° C，功率降额参照图 1.
For resistors operated at ambient temperature over 70℃, power rating shall be derated in accordance with figure 1.

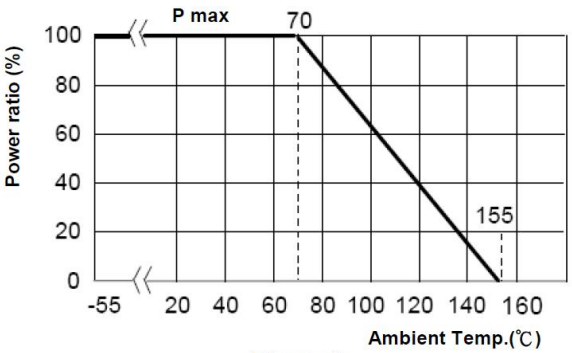


Figure 1

6. 电气特性/ Electrical Characteristics

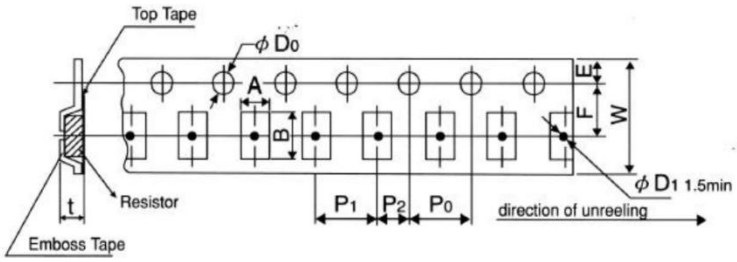
Type	Rating 70(w)	TCR(ppm/℃)	Operating Temperature Range	Resistance Range
1206	1W	±50ppm	-55° C~+170° C	1mΩ-200mΩ
2512	2W/3W	±50ppm		1mΩ-500mΩ

7. 信赖性测试/ Reliability Tests:

项目/ Item	测试条件/ Test conditions	标准/ Specification
Short Time Overload	5X rated power for 5s	±0.5%
Temperature Coefficient of Resistance	TCR(ppm/℃) = ((R2-R1)/R1*(T2-T1))*10^6 R1:Resistance value(Ω) at room temp.(T1) R2:Resistance value(Ω) at -55℃ or 125℃.(T1)	±50ppm
Biased Humidity	10% Rated voltage at 85° C, RH:85% 1000Hrs, Measurement at 23hrs after test conclusion.	±0.5%
Temperature Cycling	1000Cycle(-55° C to125° C) Measurement at 24hrs after test conclusion. Refer to AEC-Q200	±0.5%
Low Temperature Exposure (Storage)	-55° C for 45 min	±0.5%
High Temperature Exposure (Storage)	T=125° C,1000hrs, Measurement at 24hrs after test conclusion.	±1.0%
Operation life	1000h at +70° C,1.5” ON”, 0.5h “OFF”	±1.0%
Resistance to solder Heat	T=260±5° C solder, 10±1sec dwell	±0.5%
Solder ability	Baking 155° C 4H,dipping 235° C 5s	Over 95%

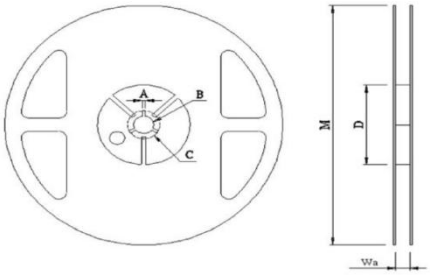
8. 编带 Taping & Reel

8.1 Taping Dimensions



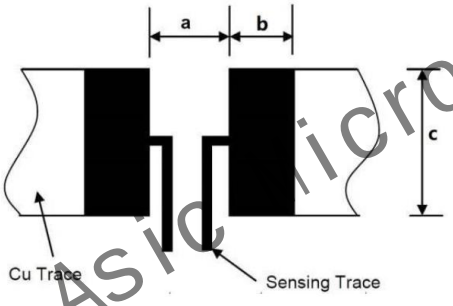
Type	Pack	Q'ty/R	A ±0.2	B ±0.2	D0 +0.5/-0	E ±0.1	F ±0.05	P0 ±0.1	P1 ±0.1	P2 ±0.1	W ±0.2	D1 ±0.05	T ±0.15
1206	Paper	5k pcs	2.0	3.6	1.5	1.75	3.5	4.0	4.04	2.0	8.0	NA	0.81
2512	Emboss	4k pcs	3.6	6.9	1.5	1.75	5.5	4.0	4.0	2.0	12.0	1.5	1.2

8.2 Reel Specifications



Type	A ±0.5	B ±0.5	C ±0.5	D ±1.0	M ±2.0	W ±0.5
1206	2.0	13.5	21.0	60.0	178.0	9.0
2512	2.0	13.5	21.0	80.0	178.0	13.8

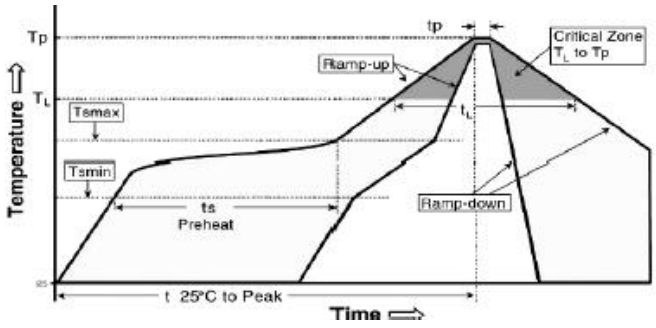
9. 焊盘建议/ Recommended Solder Pad Dimension



Type	a±0.1	b±0.1	c±0.1
1206	1.8	2.3	1.0
2512(R≧2mΩ)	4.0	2.1	4.1
2512(R≦1mΩ)	4.0	3.1	1.3

10. 储存条件/ Storage Conditions: Temperature: 5℃~35℃, Humidity: 40%~75%.

11. 回流焊参数/ Recommend IR-Reflow profile: (solder: Sn96.5 / Ag 3 / Cu0.5)



Profile Feature	Lead (Pb)-Free Assembly
Average ramp-up rate (Tsmax to Tp)	3℃ / second max.
Preheat - Temperature Min (Ts_{min}) - Temperature Max (Ts_{max}) - Time (Ts_{min} to Ts_{max}) (ts)	 150℃ 200℃ 60 -120 seconds
Time maintained above : - Temperature (T_L) - Time (T_L)	 217℃ 60-150 seconds
Peak Temperature (Tp)	260℃
Time within $^{+0}_{-5}$℃ of actual Peak Temperature (tp)[2]	10 seconds
Ramp-down Rate	6℃/second max.
Time 25℃ to Peak Temperature	8mimutes max.