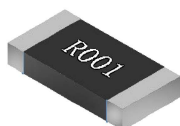


【metal strip current Sensing resistor-SR series】

电流采样贴片电阻 Current Sampling Patch Resistors

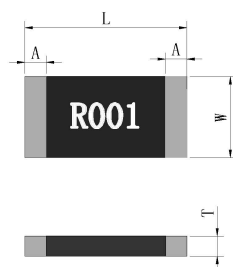


● 特征 Features



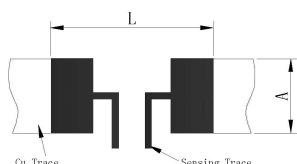
- 阻值范围 Resistance value: 0.5~500mΩ
- 精度 Tolerance: $\pm 1\%$, $\pm 2\%$
- 功率 Power: 2512: 2W, 3W 2725: 4W 2728: 4W 4527 5W
- 温度系数 Temperature coefficient: $\pm 50\text{ppm}/^\circ\text{C}$
- 推荐工作范围 Recommended operating temperature range: $-55^\circ\text{C} \sim 155^\circ\text{C}$
- 符合ROHS要求 Lead-free
- 特殊规格可以订做 Special tolerance is available on request

● 尺寸规格 Dimensions Data



尺寸 Type	长 L/mm	宽 W/mm	脚长 A/mm	厚度 T/mm	阻值范围 R/mΩ
2512	6.4 ± 0.15	3.2 ± 0.15	1.72 ± 0.15	0.8 ± 0.1	0.5~4
			0.85 ± 0.15		1~500
2725	6.8 ± 0.2	6.4 ± 0.2	1.1 ± 0.2	1.2 ± 0.1	0.25, 0.5, 1
			1.7 ± 0.2		2~3
2728	7.2 ± 0.2	6.8 ± 0.2	1.2 ± 0.2	1.0 ± 0.1	4~50
4527	11.5 ± 0.2	6.9 ± 0.2	2.3 ± 0.2	2.0 ± 0.1	1~10

● 推荐焊盘尺寸 Recommend Solder Pand Dimensions



Size	Dimensions	
	A/mm	L/mm
2512	3.6	7.9
2725	6.86	7.7
2728	7.8	9.0
4527	3.4	15.1

● 品名构成 Type Designation

SR	W	2512	R001	F
↓	↓	↓	↓	↓
产品名称 Product Code	功率代号 Power	型号代号 Type Code	电阻值代号 Resistance Value Code	阻值误差精度代号 Resistance Tolerance Code
电流采样贴片电阻 Current Sampling Patch Resistors	2W, 3W 4W 4W 5W	2512 2725 2728 4527	R001=0.001Ω	F : $\pm 1\%$ G : $\pm 2\%$

【metal strip current Sensing resistor-SR series】



● 特性 Characteristics

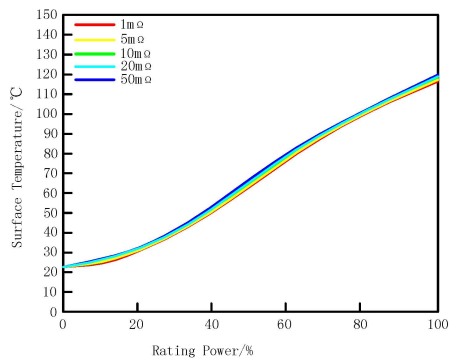
项目 Item	标准 Specifications	测试方法 Test Methods
可焊性 Solderability	可焊面积 $\geq 95\%$ 95% Cover Min	IEC 60115-1 4.17 245℃ $\pm 5^\circ\text{C}$ 锡槽, 保持3s $\pm 0.3\text{s}$ Lead-free solder bath at 245℃ $\pm 5^\circ\text{C}$ for 3s $\pm 0.3\text{s}$
电阻温度系数 T.C.R	在规定值内 Within specified T.C.R	IEC 60115-1 4.8 20℃-120℃
温度快速变化 Rapid Change of Temperature	无可见损伤 No mechanical damage $\Delta R \leq \pm 1.0\%R$	IEC 60115-1 4.19 -55℃(30分钟) ~ 常温(5分钟) ~ 125℃(30分钟) 100个循环。 -55℃(30min) ~ normal temperature (5min) ~ 125℃ (30min) 100 cycles.
耐焊接热 Resistance to Soldering Heat	无可见损伤 No mechanical damage $\Delta R \leq \pm 1.0\%R$	IEC 60115-1 4.18 270℃ $\pm 5^\circ\text{C}$ 锡槽, 保持10s $\pm 1\text{s}$ 。 Lead-free solder bath at 270℃ $\pm 5^\circ\text{C}$ for 10s $\pm 1\text{s}$.
短时间过负载 Short time overload	无可见损伤 No mechanical damage $\Delta R \leq \pm 1.0\%R$	IEC 60115-1 4.13 2W:4倍额定功率, 保持5秒; 3W:4倍额定功率, 保持5秒。 2W:Rated power $\times 4$ for 5 seconds; 3W:Rated power $\times 4$ for 5 seconds.
基板弯曲试验 Substrate Bending Test	无可见损伤 No mechanical damage $\Delta R \leq \pm 1.0\%R$	IEC 60115-1 4.33 弯曲距离 (Bending Distance) :2mm 保持时间 (duration) :60s $\pm 5\text{s}$
稳态湿热 Damp Heat Steady State	无可见损伤 No mechanical damage $\Delta R \leq \pm 1.0\%R$	IEC 60115-1 4.24 40℃ $\pm 2^\circ\text{C}$, 93% $\pm 3\%RH$, 1000小时, 额定电流或元件极限电流 (取较少值) 通1.5小时/断0.5小时。 40℃ $\pm 2^\circ\text{C}$, 93% $\pm 3\%RH$, 1000 hours, Rated current or limiting element current whichever is lower 1.5h ON/0.5h OFF.
70℃耐久性 Endurance at 70℃	无可见损伤 No mechanical damage $\Delta R \leq \pm 1.0\%R$	IEC 60115-1 4.25.1 70℃ $\pm 2^\circ\text{C}$, 1000小时, 额定电流或元件极限电流 (取较少者) 通 1.5小时/断0.5小时。 70℃ $\pm 2^\circ\text{C}$, 1000h, Rated current or limiting element current whichever is lower 1.5h ON/0.5h OFF
上限类别温度耐久性 Endurance at Upper Category Temperature	无可见损伤 No mechanical damage $\Delta R \leq \pm 1.0\%R$	IEC 60115-1 4.25.3 170℃ $\pm 2^\circ\text{C}$, 1000小时 170℃ $\pm 2^\circ\text{C}$, 1000h
耐溶性 Component Solvent Resistance	无可见损伤 No mechanical damage $\Delta R \leq \pm 1.0\%R$	IEC 60115-1 4.29 异丙醇 (IPA), 23℃ $\pm 5^\circ\text{C}$, 浸10小时 Iso-propyl alcohol (IPA), 23℃ $\pm 5^\circ\text{C}$, 10h

【metal strip current Sensing resistor-SR series】



● 电气性能 Electrival Features

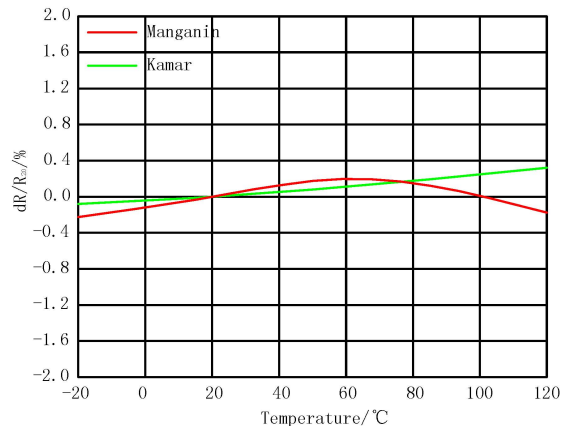
* 表面温度曲线 Surface Temperature Curve



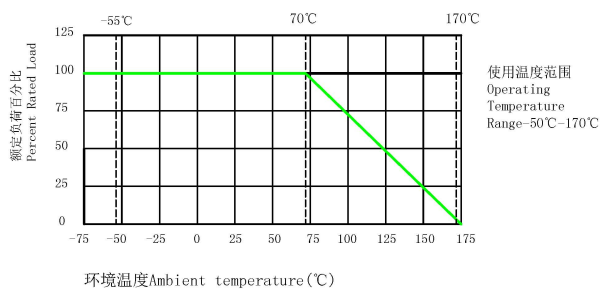
备注：表面温度测试板采用铝基板

Note: Surface temperature rise test boards use aluminum substrate

* 温度系数曲线 TCR Derating Curve



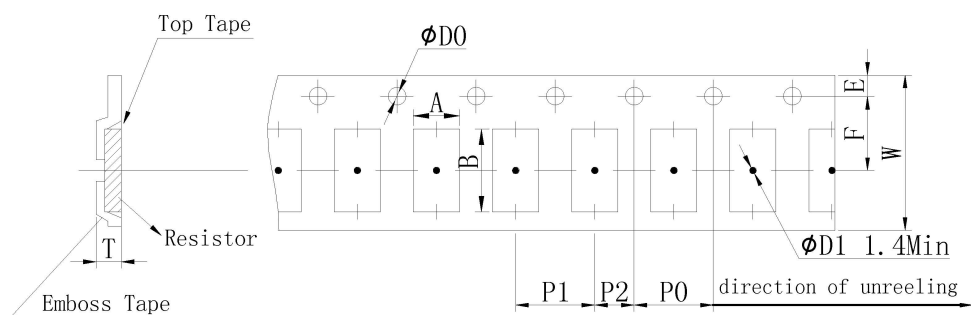
* 负荷下降曲线 Derating Curve



* 应用范围 Applisations

- 过流保护 Over current protection
- 电流采样 Current sensenapplications
- 伺服电机控制电路 Swrvo motor control circuits
- 智能功率模块 Intelligent power modules
- 工业电脑模块及精密测量系统 industrial PC moduls and precision measurement system
- 高速CPU外围设备中的电流检测电路 Current detection circuits in hinhg-speed CPU peripherals

● 编带包装 Tape and Reel



Type	A	B	W	E	F	P0	P1	P2	ØD0	T	Quantity (EA)
2512	3.5	6.8	12	1.75	5.5	4	4	2	1.5	1.2	4000
2725	6.8	7.2	12	1.75	5.5	4	8	2	1.5	1.45	1000
2728	7.7	7.2	12	1.75	5.5	4	12	2	1.5	1.45	3000
4527	7.2	11.8	24	1.75	11.5	4	12	2	1.5	2.5	500