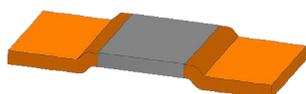


FSHY

分流贴片电阻

● 特征 Features



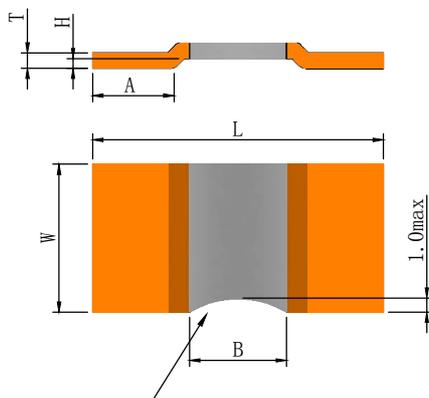
- 精度±5%和±2%，±1% Tolerance ±5% and ±2%，±1%
- 温度系数±20ppm/°C和±50ppm/°C ±75ppm/°C TCR down to ±20ppm/°C and ±50ppm/°C ±75ppm/°C
- 电子束焊接结构 Electron-beam welding
- 耐高温 Sustain high temperature
- 电感小于10纳亨 Low inductance
- 符合ROHS要求 Lead-free
- 阻值低至0.0002欧 Resistance values down to 0.0002ohms
- 特殊规格可以订做 Special tolerance is available on request

● 品名构成 Type Designation

HYR	M	2512	R001	F	T
↓	↓	↓	↓	↓	↓
品名 Product Code	材料代号 Material	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	包装方式代号 Packing Style Code
	M : Manganin K : Kamar F : FeCrAl	2512 3920 5930	0M20=0.20mΩ R001=0.001Ω {	F : ±1% G : ±2% J : ±5%	T : 编带包装 Tape & Reel C : 塑料袋散装 Case

● 尺寸 Dimensions Data

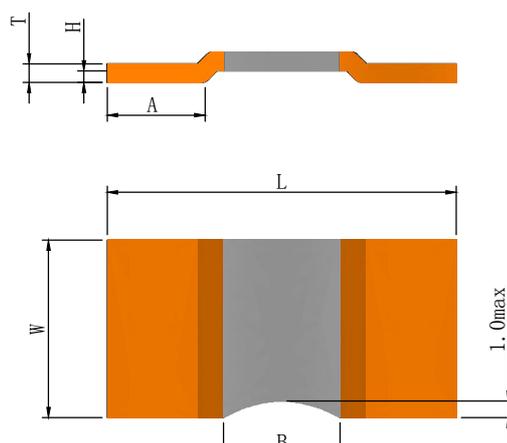
产品代号	型号	功率/W	B/mm	W/mm	L/mm	A/mm	H/mm
HYR-M/F-2512	2512	3-5W	3.0±0.3	3.2±0.25	6.4±0.2	1.2±0.2	0.5±0.1
HYR-M/K/F-3920	3920	5	4.5±0.3	5.2±0.3	10±0.2	2.0±0.2	0.5±0.1
HYR-M/K/F-5930	5930	7	5.0±0.3	7.7±0.3	15±0.2	4.2±0.2	0.5±0.1



注：侧边圆弧为修阻工艺缺口

● 阻值Resistance Data

产品代号	阻值/mΩ	T/mm
HYR-M-2512	0.3	0.95±0.1
	0.35	0.6±0.1
	0.4	0.88±0.1
	0.5	0.85±0.1
	0.7	0.6±0.1
	1	0.42±0.1
HYR-F-2512	2	0.67±0.1
	3	0.45±0.1
	4	0.32±0.1
	5	0.32±0.1
HYR-M-3920	0.2	1.66±0.1
	0.3	1.28±0.1
	0.5	0.77±0.1
	0.7	0.55±0.1
	1	0.43±0.1
HYR-F-3920	1	1.25±0.1
	2	0.62±0.1
	3	0.42±0.1
	4	0.35±0.1
	5	0.28±0.1
HYR-K-3920	3	0.43±0.1
HYR-M-5930	0.2	1.5±0.1
	0.3	0.96±0.1
	0.4	0.72±0.1
	0.5	0.58±0.1
	0.75	0.39±0.1
	0.8	0.36±0.1
HYR-F-5930	1	0.94±0.1
	2	0.48±0.1
	3	0.31±0.1
HYR-K-5930	2	0.43±0.1



注：侧边圆弧为修阻工艺缺口

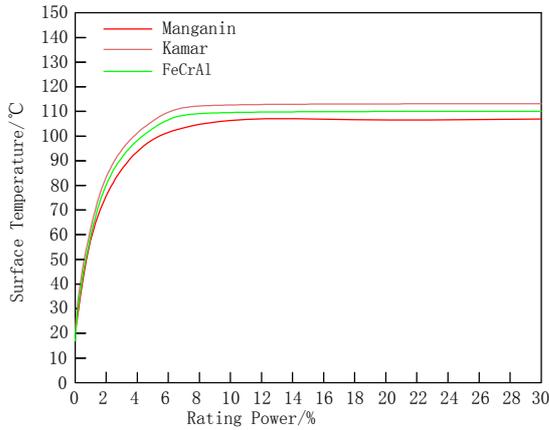
● 特性 Characteristics

项目 Item	标准 Specifications	测试方法 Test Methods
可焊性 Solderability	可焊面积≥95% 95% Cover Min	IEC 60115-1 4.17 245°C±5°C锡槽，保持3s±0.3s Lead-free solder bath at 245°C±5°C for 3s±0.3s
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°C-120°C
短时过负载 Short time overload	无可见损伤 No mechanical damage ΔR≤±1.0%R	IEC 60115-1 4.13 4倍额定功率，保持5秒 Rated power×4 for 5 seconds

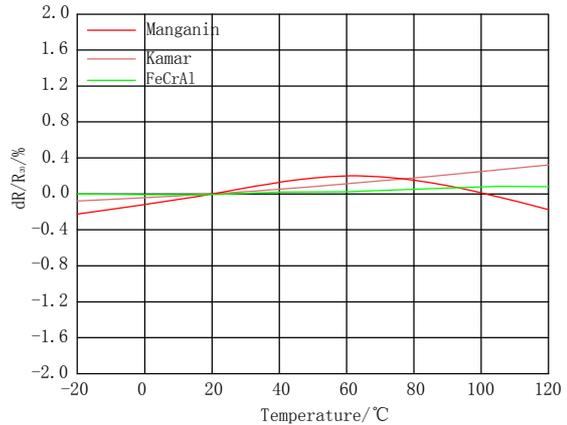
项目 Item	标准 Specifications	测试方法 Test Methods
耐焊接热 Resistance to Soldering Heat	无可见损伤 No mechanical damage $\Delta R \leq \pm 1.0\%R$	IEC 60115-1 4.18 260°C, 保持10s±1s。 Lead-free solder bath at 260°C±5°C for 10s±1s.
70°C耐久性 Endurance at 70°C	无可见损伤 No mechanical damage $\Delta R \leq \pm 1.0\%R$	IEC 60115-1 4.25.1 70°C±2°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°C±2°C, 1000h, Rated current or limiting element current whichever is lower 1.5h ON/0.5h OFF
高温高湿 Biased Humidity	无可见损伤 No mechanical damage $\Delta R \leq \pm 1.0\%R$	AEC-Q200 Test 7/MIL-STD-202 method 103 温度85°C, 湿度85%的条件下施加10%额定功率(电流)或元件极限电流(取较少者), 持续1000小时。 85°C/85%RH, 1000 hours, Apply 10% of operating power(current) or limiting element current whichever is lower.
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°C (30分钟)~常温(5分钟)~125°C (30分钟) 100循环 -55°C (30min)~normal temperature (5min)~125°C (30min) 100cycles
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°C±2°C, 1000h

● 电器性能 Electrical Features

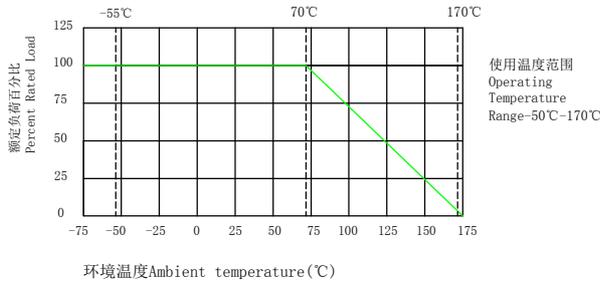
* 表面温度曲线 Surface Temperature Curve



* 温度系数曲线 TCR Derating Curve



* 负荷下降曲线 Derating Curve

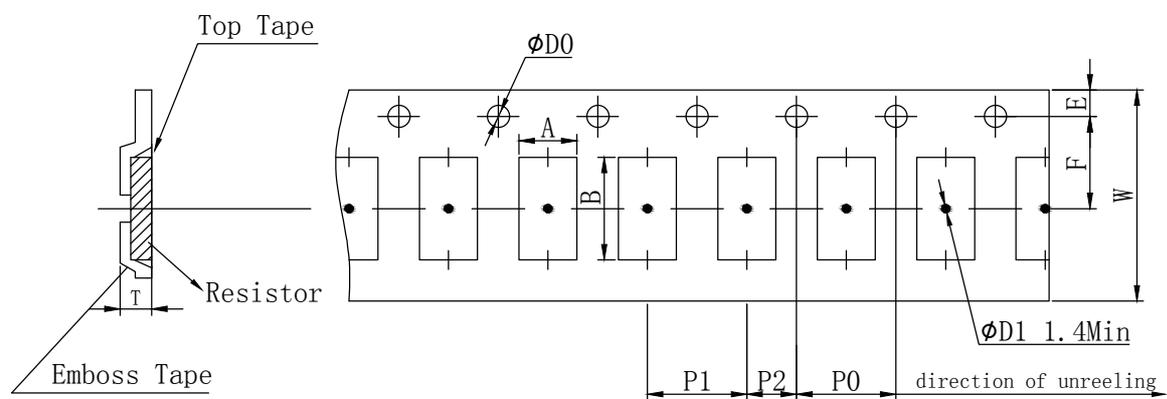


备注: 表面温度测试板采用铝基板 Note: Surface temperature rise test boards use aluminum substrate

* 应用领域 Application

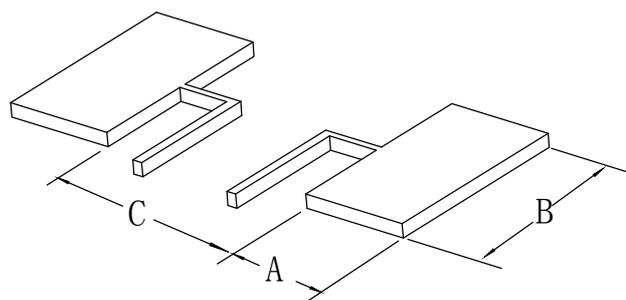
- 混合应用的电源电流传感器
Current sensor for power hybrid applications
- 变频器 Frequency converters
- 电流模块 Power modules
- 通信系统 Communication system
- 自动化控制电源 Automatic control power supply
- 汽车市场的高电流应用 High current applications for the automotive market

• 编带包装 Tape and Reel



Type	A	B	W	E	F	P0	P1	P2	$\phi D0$	T	Quantity (EA)
2512	3.5	6.8	16	1.75	5.5	4	8	2	1.5	1.8	4000
3920	5.7	11.2	24	1.75	7.5	12	12	6	1.5	2.5	2000
5930	8.2	16.1	32	1.75	11.5	12	12	6	1.5	2.5	2000

• 推荐焊盘尺寸 Solder pad dimensions



Type	A (mm)	B (mm)	C (mm)
2512	1.8 ± 0.25	3.6 ± 0.25	3.8 ± 0.25
3920	2.7 ± 0.25	6.2 ± 0.25	5.6 ± 0.25
5930	5.2 ± 0.25	8.75 ± 0.25	5.6 ± 0.25