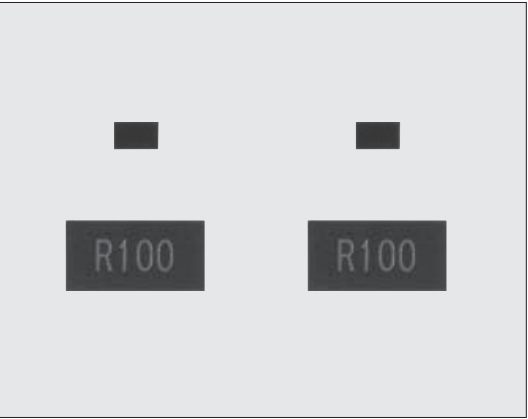


TLRH 金属板贴片式低电阻器
Metal Plate Chip Type Low Resistance Resistors



外观颜色：黑色 Coating color：Black

特点 Features

- 小型，低电阻值的贴片型电流检测用电阻器
- 产品内部有金属支持板，是高散热性的电阻器（3AW）
- 温漂系数低的高信赖性高性能产品
- 对应自动贴片机
- 对应回流焊
- 对应欧盟RoHS
- AEC-Q200相关数据已取得。
- SMD Type of small size, low resistance resistor for current detection.
- Carrier metal plate inside, resistor of high radiation of heat structure. (3AW)
- High reliability and performance with Low T.C.R.
- Automatic mounting machines are applicable.
- Suitable for reflow soldering.
- Products meet EU-RoHS requirements.
- AEC-Q200 qualified.

用途 Applications

- 逆变电源
- 马达控制
- 移动电脑
- Inverter power supplies
- Motor control
- Mobile PC

参考标准 Reference Standards

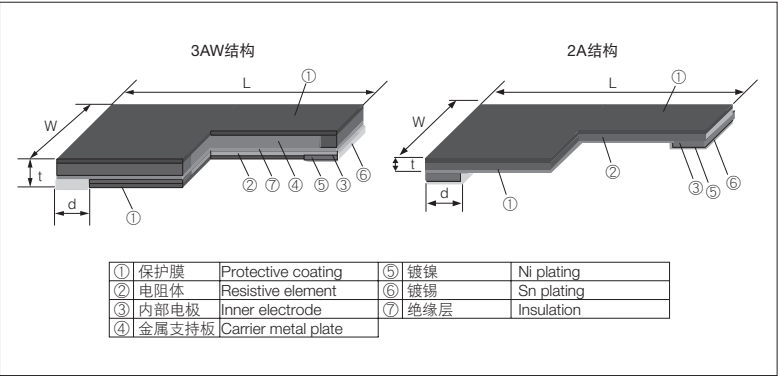
IEC 60115-8
JIS C 5201-8

额定值 Ratings

型号 Type	额定功率 Power Rating	电阻温度系数 T.C.R. ($\times 10^{-6}/K$)	电阻值范围 Resistance Range (Ω)	额定端子部温度 Rated Terminal Part Temp.	使用温度范围 Operating Temp. Range	编带和包装数/卷 Taping & Q'ty /Reel (pcs)	
			F: $\pm 1\%$ (E12)			TD	TE
TLRH 2A	0.25W	± 75	10m $\sim$ 100m ^{※1}	105 $^{\circ}C$	-65 $^{\circ}C \sim +155^{\circ}C$	5,000	—
TLRH 3AW	2.0W	± 75 ± 50	10m $\sim$ 22m 24m $\sim$ 270m		-65 $^{\circ}C \sim +170^{\circ}C$	—	2,000

※1 有关E12以外的电阻值，请您另行询问。
※1 Please ask separately us about Resistance other than E12.

结构图 Construction



外形尺寸 Dimensions

型号 Type (Inch Size Code)	尺寸 Dimensions (mm)				Weight (g) (1000pcs)
	L	W	d	t	
2A (0805)	2.0 $\pm$ 0.2	1.25 $\pm$ 0.2	0.35 $\pm$ 0.2	0.25 $\pm$ 0.15	4
3AW (2512)	6.3 $\pm$ 0.2	3.2 $\pm$ 0.2	0.75 $\pm$ 0.2	0.5 $\pm$ 0.2	52

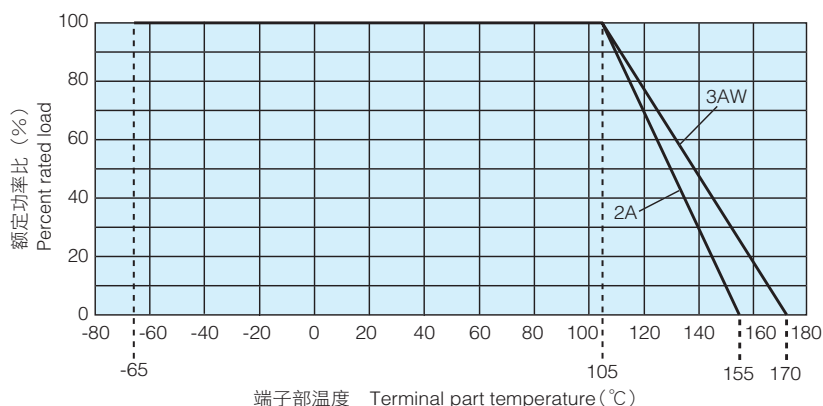
品名构成 Type Designation

实例 Example	品种 Product Code	额定功率 Power Rating	端子表面材质 Terminal Surface Material	二次加工 Taping	公称电阻值 Nominal Resistance	阻值允许偏差 Resistance Tolerance
TLRH		2A: 0.25W 3AW: 2.0W	T: Sn	TE: Plastic embossed TD: 4mm pitch punch paper BK: Bulk	F: 4 digits EX 33L0: 33m Ω R100: 100m Ω	F: $\pm 1\%$

欲知关于此产品含有的环境负荷物质详情（除EU-RoHS以外），请与我们联系。
编带细节请参考卷末附录C。

Contact us when you have control request for environmental hazardous material other than the substance specified by EU-RoHS.
For further information on taping, please refer to APPENDIX C on the back pages.

■ 负荷减轻特性曲线 Derating Curve



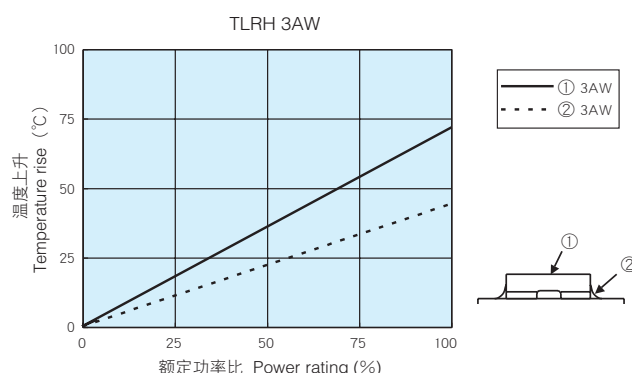
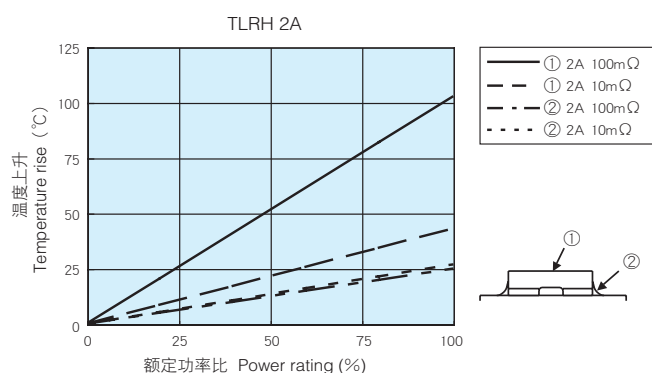
超过上述端子部温度使用时，请根据负荷减轻特性曲线减小额定功率后使用。

※有关使用方法，请参照卷首的“端子部温度负荷减轻特性曲线的说明”。

For resistors operated terminal part temperature of described for each size or above, a power rating shall be derated in accordance with derating curve.

※Please refer to “Introduction of the derating curves based on the terminal part temperature” on the beginning of our catalog before use.

■ 温度上升 Temperature Rise



表面温度上升，是以本公司测定条件测定的，由于使用状况、使用基板不同，数值会有所不同，因此，在使用时请另行询问。

Regarding the temperature rise, the value of the temperature varies per conditions and board for use since the temperature is measured under our measuring conditions.

Please refer to us before use.

■ 性能 Performance

试验项目 Test Items	标准值 Performance Requirements $\Delta R \pm \%$		试验方法 Test Methods
	保证值 Limit	代表值 Typical	
电阻值 Resistance	在规定的允许偏差内 Within specified tolerance	—	25°C
电阻温度系数 T.C.R.	在规定值以内 Within specified T.C.R.	—	+25°C/+100°C
过载（短时间） Overload (Short time)	0.5	0.01: 2A 0.2: 3AW	额定功率×2.5倍施加5秒钟: 2A、3AW Rated power×2.5 for 5s: 2A、3AW
耐焊接热 Resistance to soldering heat	0.5	0.1	260°C±5°C, 10s~12s
温度突变 Rapid change of temperature	0.5	0.2: 2A 0.1: 3AW	−55°C (15min.) / +150°C (15min.) 1000 cycles
耐湿负荷 Moisture resistance	0.5	0.1	85°C±2°C, 85%RH, 1000h, 10%Bias
在端子温度105°C以下时耐久性 Endurance at 105°C and less of terminal part temperature	1	0.2: 2A 0.3: 3AW	Terminal part temp.: 105°C, 1000h, 1.5h ON/0.5h OFF cycle
低温放置 Low temperature exposure	0.5	0.05: 2A 0.02: 3AW	−65°C, 96h
高温放置 High temperature exposure	1	0.5: 2A 0.2: 3AW	155°C, 1000h: 2A 170°C, 1000h: 3AW

■ 使用注意事项 Precautions for Use

- 作为分流电阻使用时，应考虑和周围线圈的电磁感应后配置模型。
- 在50 mΩ以下的电阻值，根据焊盘图案大小和接续焊接的量，焊接后的电阻值会变动。应在事前确认电阻值降低・提高的影响后，进行设备设计。
- In case of using the low ohm resistors, please lay out a pattern considering the electromagnetic induction with surrounding inductors.
- For resistance values less than 50mΩ, the resistance value after soldering may change depending on the size of pad pattern or solder amount. Make sure the effect of decline/increase of resistance value before designing.