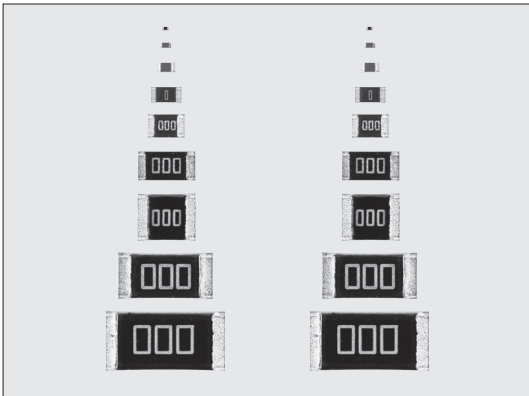


RK73Z 矩形跳线片式电阻器 Flat Chip Jumper Resistors



外观颜色: 绿色 (1H, 1E)
黑色 (1F, 1J, 2A, 2B, 2E, W2H, W3A)
Coating color: Green (1H, 1E)
Black (1F, 1J, 2A, 2B, 2E, W2H, W3A)

特点 Features

- 小型、轻量。
- 电阻膜由于使用了金属釉厚膜, 因此耐热性·耐湿性优异。
- 由于是三层结构电极, 所以具有稳定性和高信赖性。
- 对应编带、散装箱方式等各种自动贴装机。
- 对应回流焊、波峰焊。
- 端子无铅电镀品, 符合欧盟RoHS。电极、电阻膜层、玻璃中所含的铅玻璃不适用欧盟RoHS指令。
- AEC-Q200相关数据已取得(除1F)。
- Small and light weight.
- Excellent heat resistance and weather resistance, because of the use of glaze thick film as resistive film.
- High stability and high reliability because of the triple-layer structure of electrode.
- Applicable to various kinds of automatic mounters for taping, etc.
- Suitable for both flow and reflow solderings.
- Products with lead free termination meet EU-RoHS requirements. EU-RoHS regulation is not intended for Pb-glass contained in electrode, resistor element and glass.
- AEC-Q200 qualified (Exemption 1F).

参考标准 Reference Standards

IEC 60115-8
JIS C 5201-8
EIAJ RC-2134C

额定值 Ratings

型号 Type	额定环境温度 Rated Ambient Temp.	额定端子部温度 Rated Terminal Part Temp.	电阻值 Resistance	额定电流 Current Rating	最高过载电流 Max. Overload Current	使用温度范围 Operating Temp. Range	二次加工和包装数量/卷 Packaging & Qty/Reel (pcs)							
							TX	TBL	TA	TC+TCM	TPL+TP	TD	TE	
1F	70°C	125°C	50mΩ以下 50mΩ max.	0.5A	1A	-55°C~ +125°C	40,000	20,000	-	-	-	-	-	
1H							-	-	35,000	TC: 10,000 TCM: 15,000	-	-	-	
1E				-	-	-	-	TPL: 20,000 TP: 10,000	-	-	-			
1J				-	-	-	-	TP: 10,000	5,000	-	-			
2A				-	-	-	5A	-	-	-	-			
2B				-	-	-	10A	-55°C~ +155°C	-	-	-	-	5,000	4,000
2E				-	-	-			-	-	-	5,000	4,000	
W2H				-	-	-			-	-	-	-	4,000	
W3A				-	-	-			-	-	-	-	4,000	

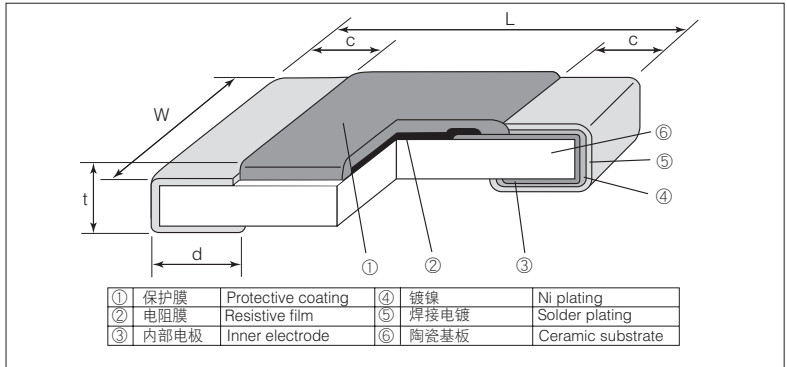
根据客户的使用状况, 如果不清楚是该使用额定环境温度还是额定端子部温度, 请以额定端子部温度为优先。

详情请参照14~17页的“端子部温度负荷特性曲线的说明”。

If any questions arise whether to use the "Rated Ambient Temperature" or the "Rated Terminal Part Temperature" in your usage conditions, please give priority to the "Rated Terminal Part Temperature".

For more details, please refer to "Introduction of the derating curves based on the terminal part temperature" in page 14 to 17.

结构图 Construction



外形尺寸 Dimensions

型号 Type (Inch Size Code)	尺寸 Dimensions (mm)					Weight (g) (1000pcs)
	L	W	c	d	t	
1F (01005)	0.4±0.02	0.2±0.02	0.10±0.03	0.11±0.03	0.13±0.02	0.04
1H (0201)	0.6±0.03	0.3±0.03	0.1±0.05	0.15±0.05	0.23±0.03	0.14
1E (0402)	1.0 ^{+0.1} _{-0.05}	0.5±0.05	0.2±0.1	0.25 ^{+0.05} _{-0.1}	0.35±0.05	0.68
1J (0603)	1.6±0.2	0.8±0.1	0.3±0.1	0.3±0.1	0.45±0.1	2.14
2A (0805)	2.0±0.2	1.25±0.1	0.4±0.2	0.3 ^{+0.2} _{-0.1}	0.5±0.1	4.54
2B (1206)	3.2±0.2	1.6±0.2	0.5±0.3	0.4 ^{+0.2} _{-0.1}	0.6±0.1	9.14
2E (1210)		2.6±0.2				15.5
W2H (2010)*1	5.0±0.2	2.5±0.2		0.65±0.15		24.3
W3A (2512)*1	6.3±0.2	3.1±0.2			37.1	

*1 RK73Z 2H和RK73Z 3A可对应 (“d”尺寸不同。“d”尺寸=0.4^{+0.2}_{-0.1} mm)

*1 RK73Z 2H和RK73Z 3A are also still available (different “d” dimensions=0.4^{+0.2}_{-0.1} mm)

品名构成 Type Designation

实例 Example

RK73Z	2B	T	TD
品种 Product Code	额定电流 Current Rating	端子表面材质 Terminal Surface Material	二次加工 Taping
	1F:0.5A 1H:0.5A 1E:1A 1J:1A 2A:2A 2B:2A 2E:2A W2H:2A W3A:2A	T:Sn G:Au*2 (L:Sn/Pb*3)	TX: 4mm width-1mm pitch plastic embossed TA: 1mm pitch press paper TBL·TC·TCM: 2mm pitch press paper TPL·TP: 2mm pitch punch paper TD: 4mm pitch punch paper TE: 4mm pitch plastic embossed BK: Bulk

*2 镀金电极品, 以1E、1J、2A型对应。规格由于有所不同, 请向本公司咨询。

*3 1F及1H、W2H、W3A只对应端子表面材质。

*2 Products with gold plated electrodes are also available with 1E, 1J and 2A type, so please consult with us.

*3 With type 1F and 1H, W2H, W3A, only T is available as the terminal surface material.

端子表面材质, 以无铅电镀品为准。

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。

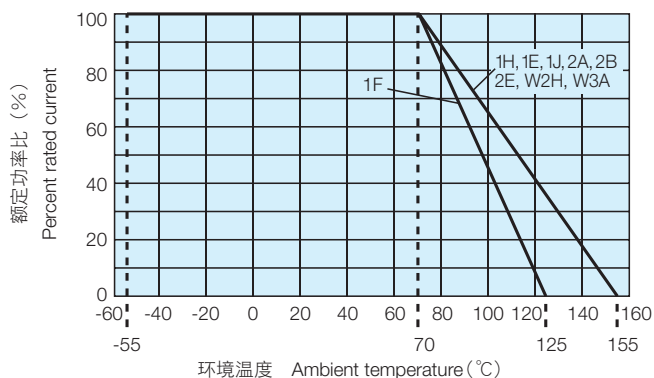
编带细节参照卷末附录C。

The terminal surface material lead free is standard.

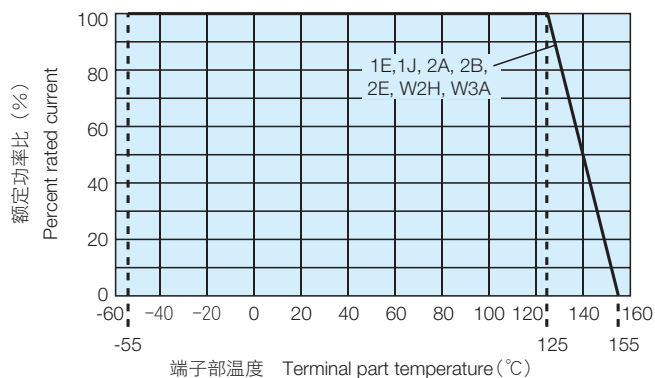
Contact us when you have control request for environmental hazardous material other than the substance specified by EU-RoHS.

For further information on taping, please refer to APPENDIX C on the back pages.

■ 负荷减轻特性曲线 Derating Curve



在环境温度70℃以上使用时，应按照上图负荷减轻特性曲线，减小额定功率。
For resistors operated at an ambient temperature of 70°C or above, a power rating shall be derated in accordance with the above 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 current 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.

■ 性能 Performance

试验项目 Test Items	标准值 Performance Requirements		试验方法 Test Methods
	保证值 Limit	代表值 Typical	
电阻值 Resistance	50mΩ以下 50mΩ Max. after the test	15mΩ以下 15mΩ Max. after the test	25°C
过载（短时间） Overload (Short time)	50mΩ以下 50mΩ Max. after the test	18mΩ以下 18mΩ Max. after the test	最高过载电流施加5秒钟 Max. overload current, 5s
耐焊接热 Resistance to soldering heat	50mΩ以下 50mΩ Max. after the test	15mΩ以下 15mΩ Max. after the test	260°C ± 5°C, 10s ± 1s
温度突变 Rapid change of temperature	50mΩ以下 50mΩ Max. after the test	15mΩ以下 15mΩ Max. after the test	-55°C (30min.) / +125°C (30min.) 100cycles
耐湿负荷 Moisture resistance	100mΩ以下 100mΩ Max. after the test	18mΩ以下 18mΩ Max. after the test	40°C ± 2°C, 90%~95%RH, 1000h 1.5小时ON、0.5小时OFF的周期 1.5h ON/0.5h OFF cycle
在70°C时的耐久性 Endurance at 70°C	100mΩ以下 100mΩ Max. after the test	18mΩ以下 18mΩ Max. after the test	70°C ± 2°C, 1000h 1.5小时ON、0.5小时OFF的周期 1.5h ON/0.5h OFF cycle
高温放置 High temperature exposure	100mΩ以下 100mΩ Max. after the test	15mΩ以下 15mΩ Max. after the test	+125°C, 1000h: 1F +155°C, 1000h: 1H, 1E, 1J, 2A, 2B, 2E, W2H, W3A

■ 使用注意事项 Precautions for Use

- 片状电阻器的基材是氧化铝。由于和安装基板的热膨胀系数不同，在反复施加热循环等热应力时，结合部的焊锡（焊接部）有时会发生龟裂。特别是大型尺寸W2H/W3A，由于热膨胀大，而且本身发热也大，使环境温度变动有较大反复和，载荷的ON/OFF有反复时，需要注意裂纹的发生。用环氧树脂印刷电路板（FR-4），在使用温度范围的上、下限进行一般性的热循环试验时，1H~2E的类型不容易发生裂纹，而W2H/W3A型则有容易发生裂纹的倾向。因热应力而发生的龟裂，取决于所安装的焊盘的大小、焊锡量、安装基板的散热性等，因此在环境温度有很大的变化或载荷ON/OFF的条件下使用时，请充分注意以进行设计。
- The substrate of chip resistors is alumina. Cracks may occur at the connection of solder (solder fillet portion) due to the difference of the coefficient of thermal expansion from a mounting board when heat stress like heat cycle, etc. are repeatedly given to them. Care should be taken to the occurrence of the cracks when the change in ambient temperature or ON/OFF of load is repeated, especially when large types of W2H/W3A which have large thermal expansion and also self heating. By general temperature cycle test using glass-epoxy (FR-4) boards under the maximum/minimum temperatures of operating temperature range, the crack does not occur easily in the types of 1H~2E, but the crack tends to occur in the types of W2H/W3A. The occurrence of the crack by heat stress may be influenced by the size of a pad, solder volume, heat radiation of mounting board etc., so please pay careful attention to designing when a big change in ambient temperature and conditions for use like ON/OFF of load can be assumed.