



深圳市业展电子有限公司

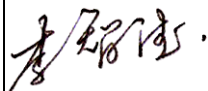
# 承认书

## SPECIFICATION FOR APPROVAL

客户名称  
Customer Name \_\_\_\_\_  
客户料号  
Customer P/N \_\_\_\_\_  
产品名称  
Product Name Alloy Shunt Resistors – ASR Series  
产品规格  
Product Type ASR-K-3921-1F  
申请承认日期  
Apply Date 2020-03-20 版本  
REV. \_\_\_\_\_

供货商属性 代理商 \_\_\_\_\_ 制造商 深圳市业展电子有限公司  
Vendor Type Agency Manufacturer: Shenzhen Yezhan Electronics Co., Ltd

Note: 禁止使用 1 级环境管理物质.遵守 ACBEL"环境管理物质规范"中所要求之含量标准.  
Banned use of hazardous substances of level 1; Comply with "Specification for Hazardous Substances and Materials Management" of ACBEL

供货商印鉴 Vendor Stamp	APPROVED	CHECKED	PREPARED	承认印鉴 Stamp
			邓小辉	

Mainland China: 深圳市业展电子有限公司  
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标准书名 Classification 承认书 Specification	Spec No.	YZ-QR-EN-007
品 名 : 分流贴片电阻器 ASR Series Product Name: Alloy Shunt Resistors	Version	1.5
	Page	5-2

**1. 一般事项 General**

**1.1 适用范围 Scope**

本承认书适用于深圳市业展电子有限公司 制造之[分流贴片电阻器]。

This specification is available for Alloy Shunt Resistors manufactured by

Shenzhen Yezhan Electronics Co., Ltd.

**1.2 品质 Quality**

本电阻器的制造系经高质量管理程序, 并具有高信赖性的质量保证, 且符合 RoHS 和无卤要求。

The resistor is manufactured by highly quality-controlled process and guaranteed high reliability,

it meets RoHS & Halogen-Free requirement.

**1.3 标准试验状态 Standard measuring conditions**

温度  $20 \pm 2^\circ\text{C}$ 、湿度  $65 \pm 5\%$ 。

但在温度  $5 \sim 35^\circ\text{C}$ 、湿度  $45 \sim 85\%$  之情况下, 仍可给予判定。

Temperature  $20 \pm 2^\circ\text{C}$ , Humidity  $65 \pm 5\%$ .

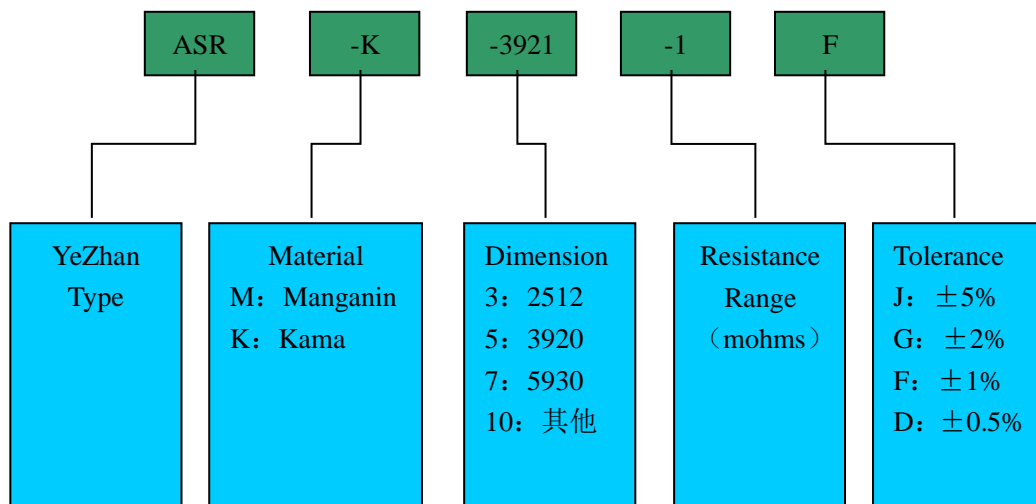
Being no doubt about the judgment, measurements can be made within the following Temperature

$5 \sim 35^\circ\text{C}$ , Humidity  $45 \sim 85\%$ .

**1.4 形名 (例) Type designation (example)**

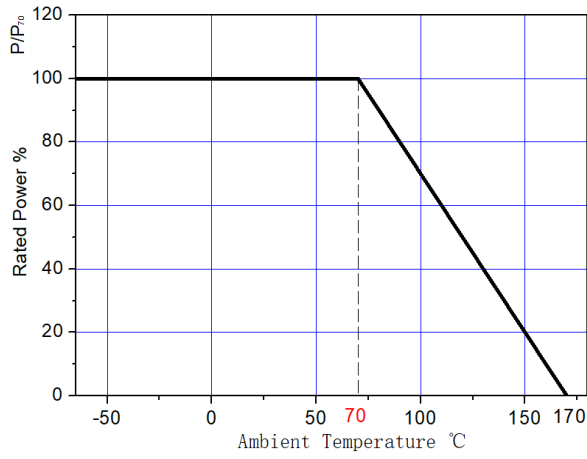
依使用种类、材料、规格、形状、公称电阻值、电阻值容许差而区别, 其构造如下:

The type designation shall be in the following form and as specified.

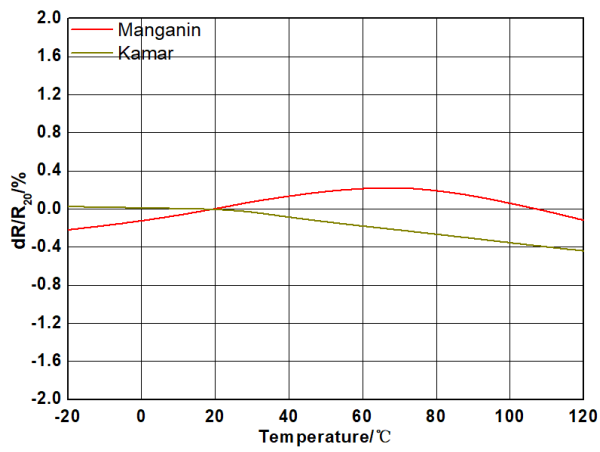


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品名：分流贴片电阻器 ASR Series Product Name: Alloy Shunt Resistors	Version	1.5
	Page	5-3

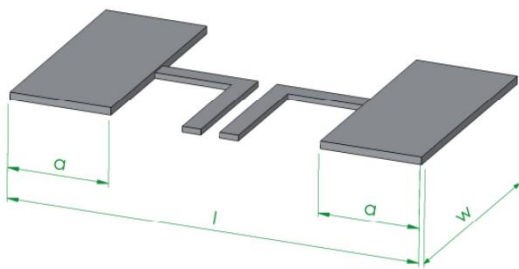
1.5 功率曲线 Power Derating



1.6 温度系数曲线 TCR Derating



1.7 推荐焊盘尺寸 Recommended Solder Pad Layout



PCB	l	w	a
2512	7	3.4	1.8
3920/ 3921	11	6.2	2.7
5930	16	8.75	5.2

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品 名 : 分流贴片电阻器 ASR Series Product Name: Alloy Shunt Resistors	Version	1.5
	Page	5-4

1.8 外形 External

项 目 Item	参 数 Parameters
图 解 Drawing	<p>The drawing shows two views of the resistor. The top view (left) shows a central grey rectangular area of width B and length T, flanked by two orange trapezoidal leads. The total width is W. The height of the central area is A. The thickness of the leads is h. The diameter of the leads is D1 and D2. The bottom view (right) shows the resistor from below, highlighting a semi-circular solder pad on the central area with a maximum height of 1.0mm.</p>
W	10mm±0.2mm
A	5.2mm±0.3mm
T	2.2mm±0.2mm
h	0.5±0.1mm
D1	1.13±0.1mm
D2	1.13±0.1mm
阻 值	1mΩ±1%
额定功率	8W
温度系数	±50ppm/°C
使用温度	-65°C~170°C

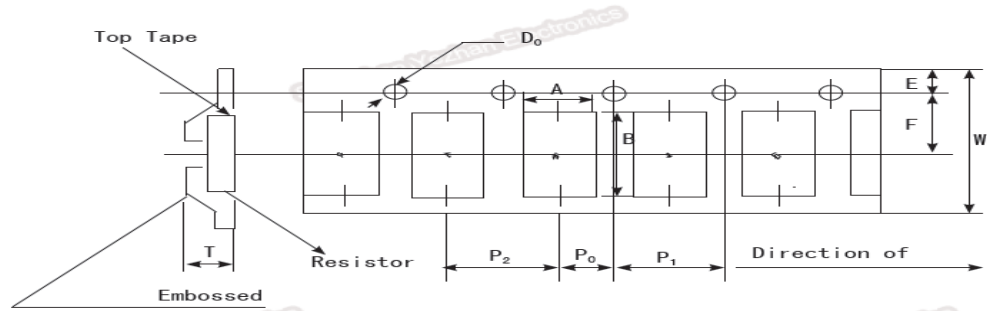
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品名：分流贴片电阻器 ASR Series	Version	1.5
Product Name: Alloy Shunt Resistors	Page	5-5

## 2 应用范围 Applications

- 混合应用的电源电流传感器 Current sensor for power hybrid applications
- 变频器 Frequency converters
- 电源模块 Power modules
- 通讯系统 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
- 体系认证 IATF16949

## 3 包装 Packaging

### Embossed plastic Tape Specifications



Unit: mm

Size	A	B	W	E	F	P <sub>0</sub>	P <sub>1</sub>	P <sub>2</sub>	D <sub>0</sub>	T	Quantity
2512	4.3	7.6	16	1.55	7.5	3.85	7.7	7.7	1.50	1.7	1000
3920	6	11	24	1.55	11.2	6	12	12	1.50	2.0	2500
5930	8.6	16	24	1.55	10.8	6	12	12	1.50	2.4	2000

## 4 工作特性 Performance Data

Items	Additional Requirements	Reference	Limits
TCR	-20~120°C, $TCR=(R_2-R_1)/(T_2-T_1)/R \times 1E6$	~	Ppm/°C
Temperature Cycling	1000 Cycles(-55°C to +125°C)	JESD22 Method JA-104	±0.5%
High Temperature Exposure	1000hrs.@T=125°C.Unpowered.	MIL-STD-202 Method 108	±1%
Biased Humidity	1000hrs 85°C/85%RH. Note: Specified conditions: 10% of operating power.	MIL-STD-202 Method 103	±0.5%
Operational Life	Condition D Steady State TA=125°C at rated power.	MIL-STD-202 Method 108	±1%
Solderability	245°C±5°C,5s+0.5s/-0	J-STD-002C	95% Coverage Min
Resistance to Soldering Heat	260°C±5°C, 10s±1s	MIL-STD-202 Method 210	±0.5%
Short Time Overload	5×Rated power for 5 s	MIL-STD-202 Method 301	±0.5%