



深圳市业展电子有限公司

承认书

SPECIFICATION FOR APPROVAL

客户名称

Customer Name 深圳市立创电子商务有限公司

客户料号

Customer P/N C493469

产品名称

Product Name Weld Precision Resistors – SBN Series

产品规格

Product Type SBN-F-15F-t

申请承认日期

版本

Apply Date 2019-11-22 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

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.

Restrict 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

Shenzhen Yezhan Electronics Co., Ltd.

Add: 深圳市龙华新区观澜街道办横坑河东村 440 号 6-7 栋
Building 6th-7th, Rongchang Industry Zone, Longhua
New District, Shenzhen City, P.R.China

Tel: 0755-26517682 Mobile: 18926048203

E-mail: caixiaojuan@yezhan.com.cn

标准书名 Classification 承认书 Specification	Spec No.	YZ-QR-EN-007
品 名 : 精密焊接电阻 SBN Series Product Name: Weld Precision Resistors	Version	1.6
	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[精密焊接电阻]。
This specification is available for Weld Precision Resistors manufactured by Shenzhen Yezhan Electronics Co., Ltd.

1.2 品质 Quality

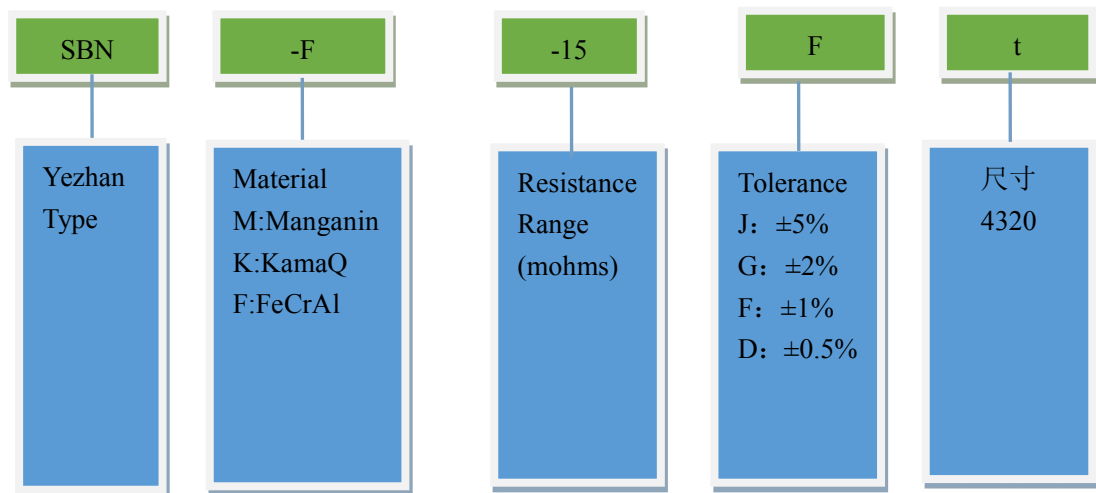
本电阻器的制造系经高质量管理程序, 并具有高信赖性的质量保证, 且符合 RoHS 和无卤要求。
The resistor is manufactured by highly quality-controlled process and guaranteed high reliability, it meets RoHS & Halogen-Free requirement.

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、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.

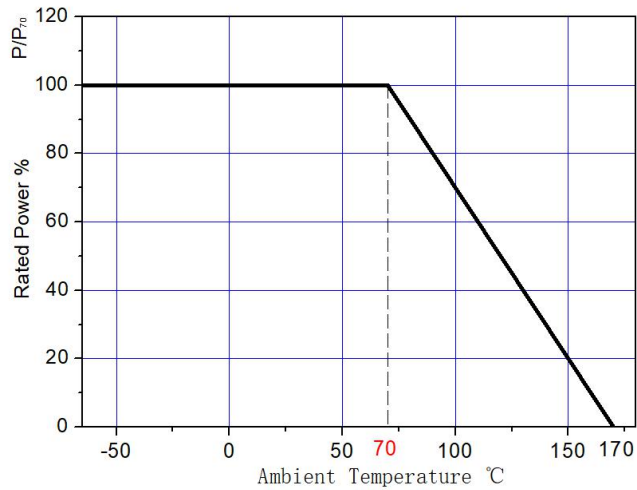


标准书名 Classification 承认书 Specification	Spec No.	YZ-QR-EN-007
品名 : 精密焊接电阻 SBN Series Product Name: Weld Precision Resistors	Version	1.6
	Page	5-3

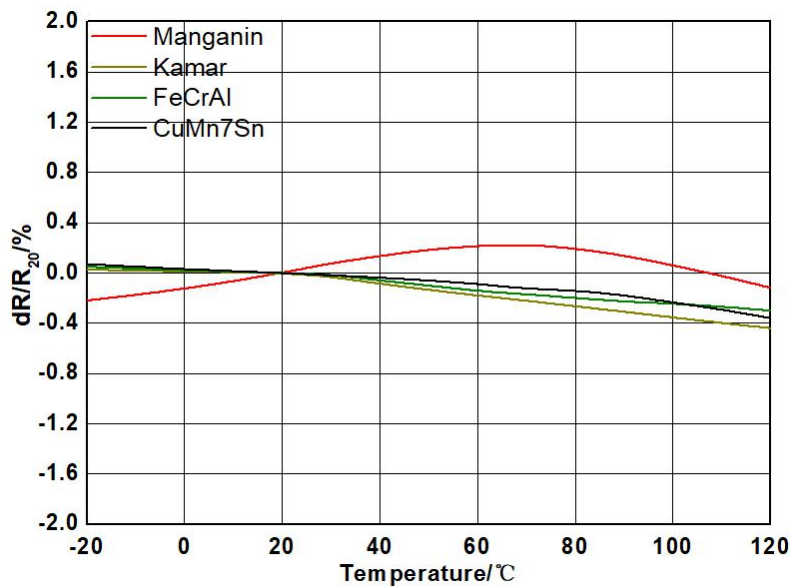
1.5 材质 Material

代号 Symbol	材料 Material	成分 Components	电阻率 Resistance rate
K	卡玛 Kama	Cr 19-21%, Al 2.5-42%, Fe 2.0-3.0%, Ni bal.	133 $\mu\Omega \cdot \text{cm}$
M	锰铜 Manganin wire	Cu 85%, Mn 12%, Ni 3%	44 $\mu\Omega \cdot \text{cm}$
F	铁铬铝 FeCrAl	Cr 21-23%, Al 5.0-7.0% Fe 余量, Re 适量, Nb 0.5%	145 $\mu\Omega \cdot \text{cm}$

1.6 功率曲线 Power Derating



1.7 温度系数曲线 TCR Derating



标准书名 Classification 承认书 Specification	Spec No.	YZ-QR-EN-007
品 名 : 精密焊接电阻 SBN Series Product Name: Weld Precision Resistors	Version	1.6
	Page	5-4

1.8外形 External

项 目	参 数
图 解	<p>The diagram shows a precision welded resistor with a U-shaped body. The top view labels dimensions: W (total length), H (height), D (wire thickness), T (lead length), and B (gap between leads). The side view labels dimension A (wire width) and a maximum height of 1.0mm. The resistor body is orange, and the leads are grey.</p>
H(高度)	3.1mm±0.3mm
A(线宽)	6.1mm±0.4mm
D(线厚)	0.23mm±0.1mm
T(脚长)	2.8mm±0.3mm
W(全长)	11mm±0.5mm
B(缺距)	4.2±0.5mm
阻 值	15mΩ±1%
额定功率	5W
使用温度	-65℃~170℃

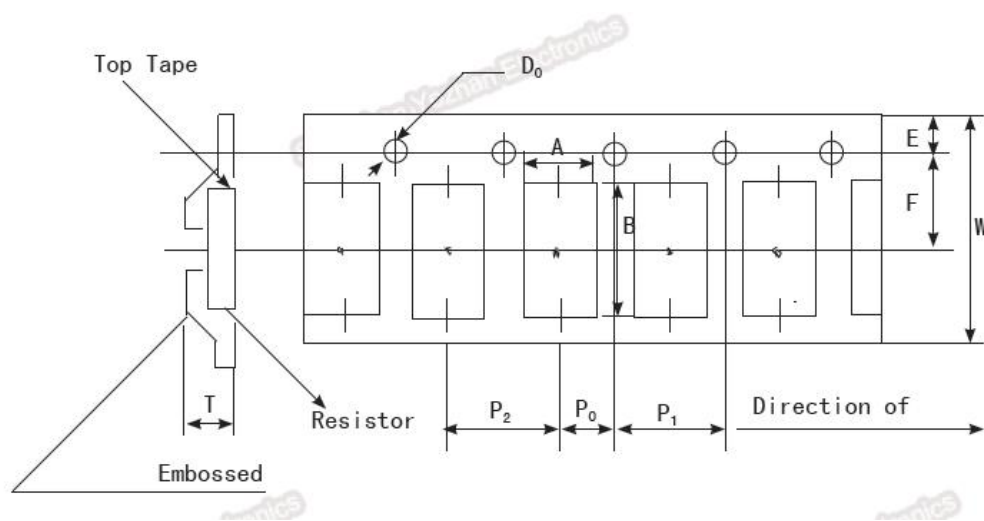
标准书名 Classification 承认书 Specification	Spec No.	YZ-QR-EN-007
品名：精密焊接电阻 SBN Series	Version	1.6
Product Name: Weld Precision Resistors	Page	5-5

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
- 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 ₀	P ₁	P ₂	D ₀	T	Quantity (EA)
4312	4.3	12.5	24	1.55	7.5	6	12	12	1.50	3.8	1000
4320	7.0	12.5	24	1.55	11.2	6	12	12	1.50	3.8	1000

4 工作特性 Performance Date

TEST	CONDITIONS OF TESE	TEST LIMITS
Shot time overload	5x rated power for 5 s	$\pm(1.0\%+0.0005\Omega)\Delta R$
Low temperature storage	-65°C for 45 min	$\pm(1.0\%+0.0005\Omega)\Delta R$
High temperature exposure	1000 h at +170°C	$\pm(1.0\%+0.0005\Omega)\Delta R$
Bias humidity	+85°C, 85%RH, 10%bias, 1000h	$\pm(1.0\%+0.0005\Omega)\Delta R$
Mechanical shock	100 g's for 6 ms, 5 pulses	$\pm(1.0\%+0.0005\Omega)\Delta R$
Vibration	Frequency varied 10 Hz to 200 Hz in 1 min, 3 directions, 12h	$\pm(1.0\%+0.0005\Omega)\Delta R$
Load life	1000h at +70°C, 1.5h "ON", 0.5h "OFF"	$\pm(1.0\%+0.0005\Omega)\Delta R$
Resistance to solder heat	+260°C solder, 10s to 12s dwell, 25mm/s emergence	$\pm(1.0\%+0.0005\Omega)\Delta R$
Moisture resistance	MIL-STD-202, method 106, 0% power, 7a and 7b not required	$\pm(1.0\%+0.0005\Omega)\Delta R$