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 **Weld Precision Resistors – SBN Series**

产品规格
Product Type **SBN-F-13F-t**

申请承认日期 版本
Apply Date **2020-09-12** **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 andMaterials 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.
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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±2℃、湿度 65±5%。

但在温度 5～35℃、湿度 45～85%之情况下，仍可给予判定。

Temperature 20±2℃, Humidity 65±5%.

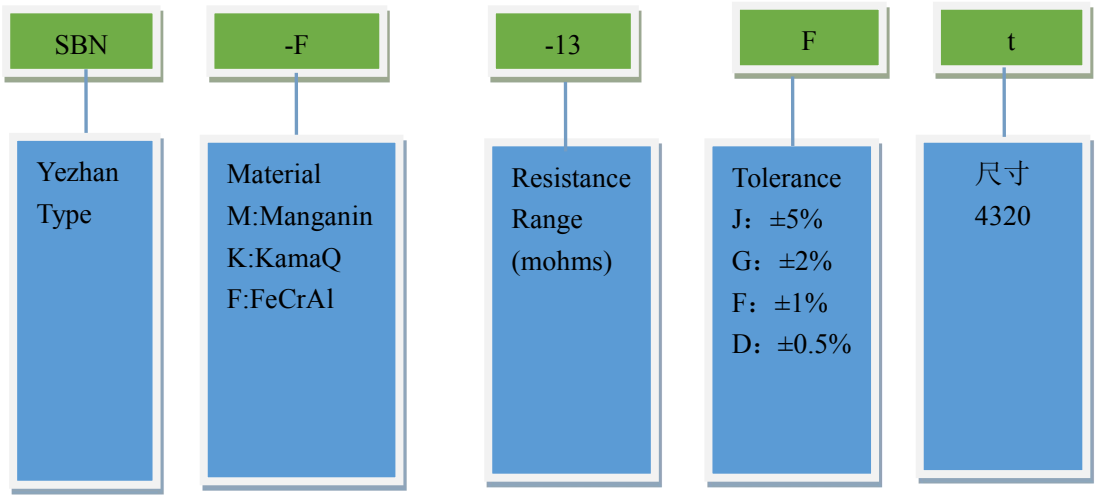
Being no doubt about the judgment, measurements can be made within the following Temperature

5～35℃, Humidity 45～85%.

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：

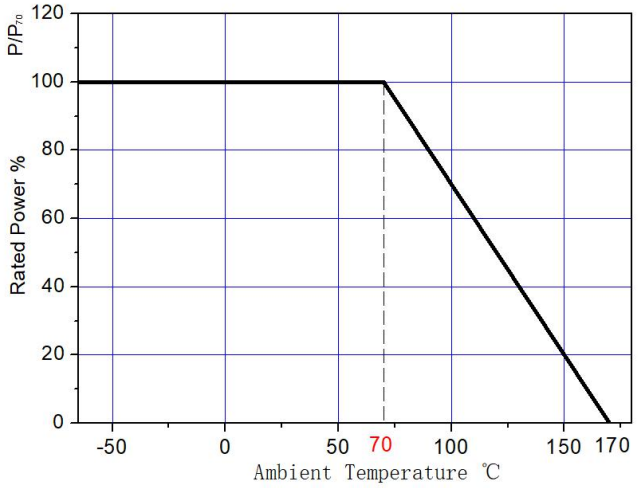
The type designation shall be in the following form and as specified.



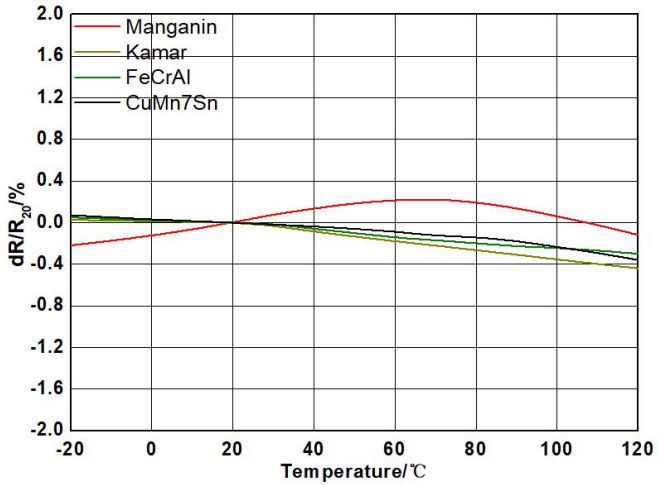
1.5 材质 Material

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.	133μΩ. cm
M	锰铜 Manganin wire	Cu 85%, Mn 12%, Ni 3%	44μΩ. cm
F	铁铬铝 FeCrAl	Cr 21-23%, Al 5.0-7.0% Fe 余量，Re 适量， Nb 0.5%	145μΩ. cm

1.6 功率曲线 Power Derating



1.7 温度系数曲线 TCR Derating



1.8外形 External

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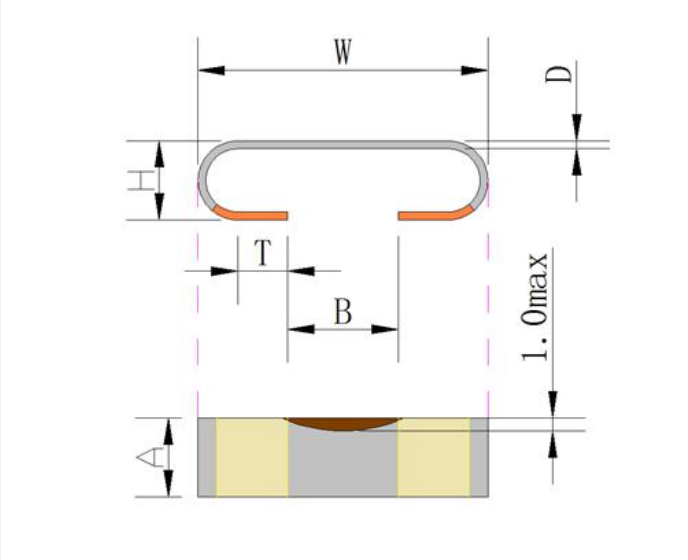
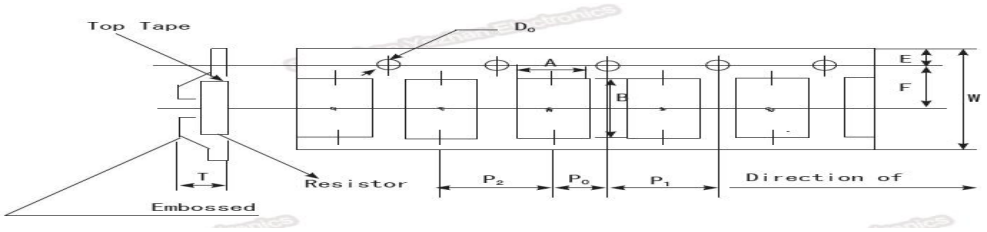
项　　目	参　　数
图　　解	
H(高度)	3.1mm±0.3mm
A(线宽)	6.1mm±0.4mm
D(线厚)	0.26mm±0.1mm
T(脚长)	2.8mm±0.3mm
W(全长)	11mm±0.5mm
B(缺距)	4.2±0.5mm
阻　　值	13mΩ±1%
额定功率	5W
使用温度	-65℃～170℃

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	8	1.50	3.8	2000
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

Iterms	Additional Requirements	Reference	Limits
Temperature Cycling	1000 Cycles(-55℃ to +125℃) Measurement at 24±2hours after test conclusion	JESD22 Method JA-104	±0.5%
High Temperature Exposure	1000hrs.@T=125℃.Unpowered. Measurement at 24±2hours after test conclusion	MIL-STD-202 Method 108	±0.5%
Biased Humidity	1000hrs 85℃/85%RH。Note: Specified conditions: 10% of operating power. Measurement at 24±2hours after test conclusion	MIL-STD-202 Method 103	±0.5%
Operational Life	Condition D Steady State TA=125℃ at rated power. Measurement at 24±2hours after test conclusion	MIL-STD-202 Method 108	±1%
Solderability	245℃±5℃,5s+0.5s/-0	J-STD-002C	95% Coverage Min
Resistance to Soldering Heat	260℃±5℃, 10s±1s Measurement at 24±2hours after test conclusion	MIL-STD-202 Method 210	±0.5%
Short Time Overload	5×Rated power for 5 s Measurement at 24±2hours after test conclusion	MIL-STD-202 Method 301	±0.5%