

客户 Customer: _____

日期 DATE: _____

纳入仕様书 SPECIFICATION

产品名称 PRODUCT NAME: 声表双工器

SAW Duplexer

贵司料号 YOUR PART NO.:

敝司料号 OUR PART NO.: MS18U897M-DU08S

版本号 VERSION.: V1.0

接受 RECEPTION

THE SPECIFICATION HAS BEEN ACCEPTED.

该纳入仕様书已被我司接受

日期:
DATE:

公司:
COMPANY:

批准
CFMD

审核
CHKD

接收
RCVD

深圳市麦捷微电子科技股份有限公司
SHENZHEN MICROGATE TECHNOLOGY CO., LTD
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CFMD. 批准	CHKD. 审核	DSGD. 担当
梁启新	赖定权	吴继航

纳入仕様书改定履历

MODIFY HISTORY OF SPECIFICATION

NO.	修改日期/DATE	修改内容/CONTENT	批准/APPROVED
1.0	2016.08.16	初稿 /New Released	梁启新
1.1	2018.10.10	版本升级/Version Upgrade	赵拥军
1.2	2018.12.16	版本升级/Version Upgrade	赵拥军
1.3	2019.05.08	版本升级/Version Upgrade	赵拥军
1.4	2019.11.26	版本升级/Version Upgrade	赵拥军

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1 适用范围 Scope

麦捷声表滤波器系列产品设计用于 WIFI、GPS、移动电话和无绳电话机等相关市场中。

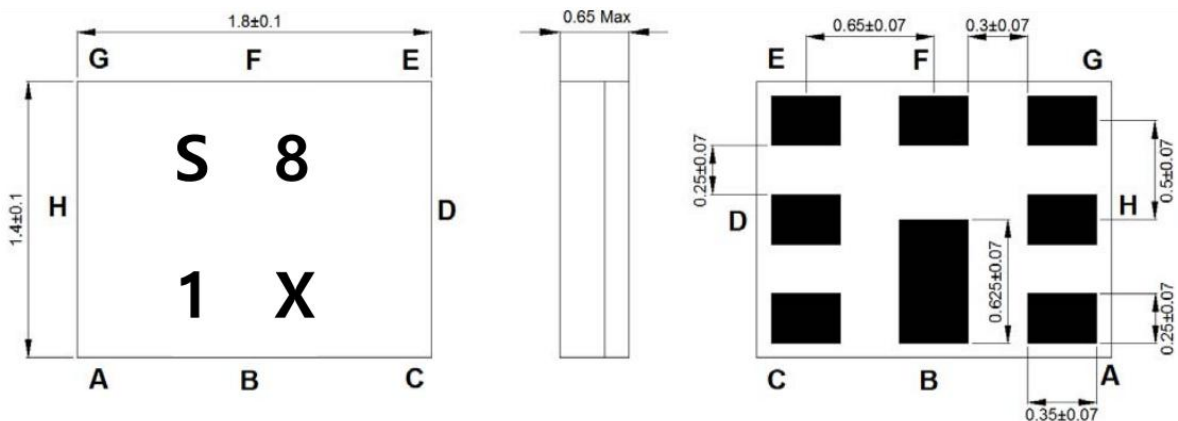
Microgate SAW Component is applicable for WIFI/GPS/Mobile phone/Cordless phone relevant market.

2 品名构成 Product Identification

MS 18 U 897M - DU 08 S
① ② ③ ④ ⑤ ⑥ ⑦

- ① 麦捷声表滤波器/Microgate SAW
- ② 尺寸/Size: (20-2016, 18-1814,15-1511,14-1411, 11-1109)
- ③ 输出/Output: (B-Balance out, U-Unbalance out)
- ④ 频率/Frequency: (897M-897MHz)
- ⑤ 型号/Type: (QP-QPX,DU-Duplexer, DI-Diplexer, TX-TX SAW, RX-RX SAW)
- ⑥ 频段/Band: 08-Band8
- ⑦ 流水号/Serial number

3 尺寸和管脚定义 Dimensions and PIN Configurations

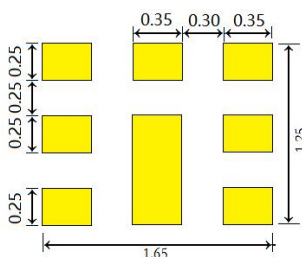


PIN NO.	①	②	③	④	⑤	⑥	⑦	⑧
PIN Name	RX	GND	TX	GND	GND	ANT	GND	GND

4 推荐焊盘与测试电路 Recommended Land Pattern and Test Circuit

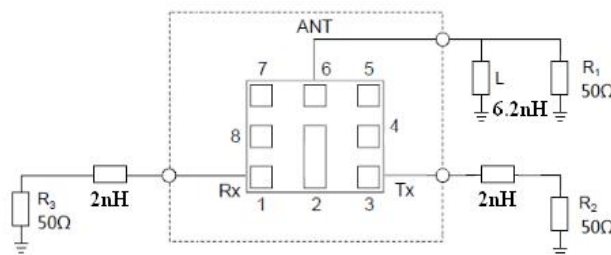
Land Pattern

Unit:mm



Test Circuit

Bottom View



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5 电气性能 Electrical Characteristics

操作温度范围 Operating Temperature Range : -20 to +85°C

保存温度范围 Storage Temperature Range : -40 to +85°C

测试温度范围 Test Temperature: 25°C±2°C

湿度敏感等级 Moisture Sensitivity Level: MSL 3

Table1. Electrical Specification

No.	Item	Frequency (MHz)	Specification			
			Min (dB)	Max (dB)	Typ. (dB)	
1	Insertion Loss	882.4 ~912.6		2.7	2.2	
2						Ripple Deviation
3	Tx to ANT	Absolute Attenuation	10~716	30		39
4			716~728	33		41
5			728~793	33		41
6			832~862	28		31
7			927.4~957.6	42		49
8			1559~1563	35		39
9			1565.42~1573.37	35		38
10			1573.37~1577.47	35		38
11			1577.47~1585.42	35		38
12			1597.55~1605.89	35		38
13			1710~1785	30		36
14			1760~1840	30		35
15			1840~1880	30		35
16			1920~1980	30		34
17			2110~2170	28		32
18			2400~2500	25		30
19			2434~2494	25		30
20			2620~2745	25		30
21			3520~3660	15		24
22			4400~4575	5		17
23	4900~5950	5		17		
24	VSWR	882.4 ~912.6(Tx)		2	1.5	
25		882.4 ~912.6(ANT)		2	1.5	
26	Input Signal Level		+29dBm , 5000 h (55°C)			

Table2. Electrical Specification

No.	Item		Frequency (MHz)	Specification			
				Min (dB)	Max (dB)	Typ. (dB)	
1	ANT to Rx	Insertion Loss	927.4~957.6		2.6	2.1	
2		Ripple Deviation	927.4~957.6		2	1	
3		Absolute Attenuation		10~880	32		37
4				835~870	33		38
5				882.4~912.6	45		55
6				902.5~910	45		62
7				980~1045	35		39
8				1045~6000	17		23
9				1427~1448	33		39
10				1710~1785	35		40
11				1805~1980	35		40
12				2400~2500	35		41
13				2500~2570	35		41
14				2685~2790	35		40
15				2775~2880	35		39
16				2880~3700	30		35
17				3700~3840	27		33
18				4625~4800	15		23
19				4900~5950	15		23
20			VSWR		927.4~957.6(ANT)		2.0
21				927.4~957.6(Rx)		2.0	1.5

Table3. Electrical Specification

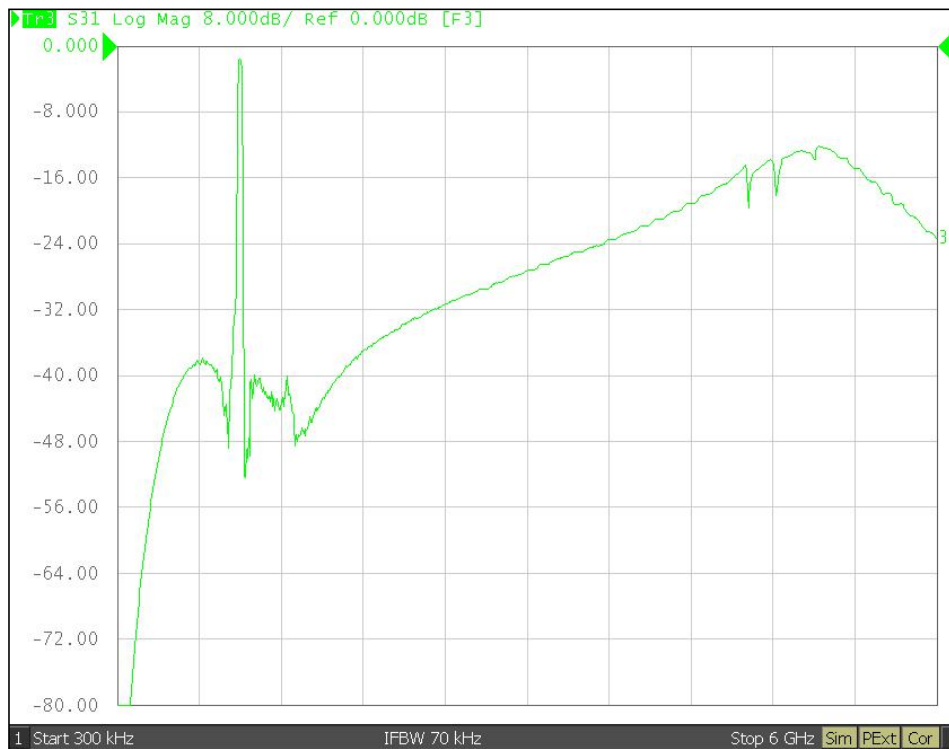
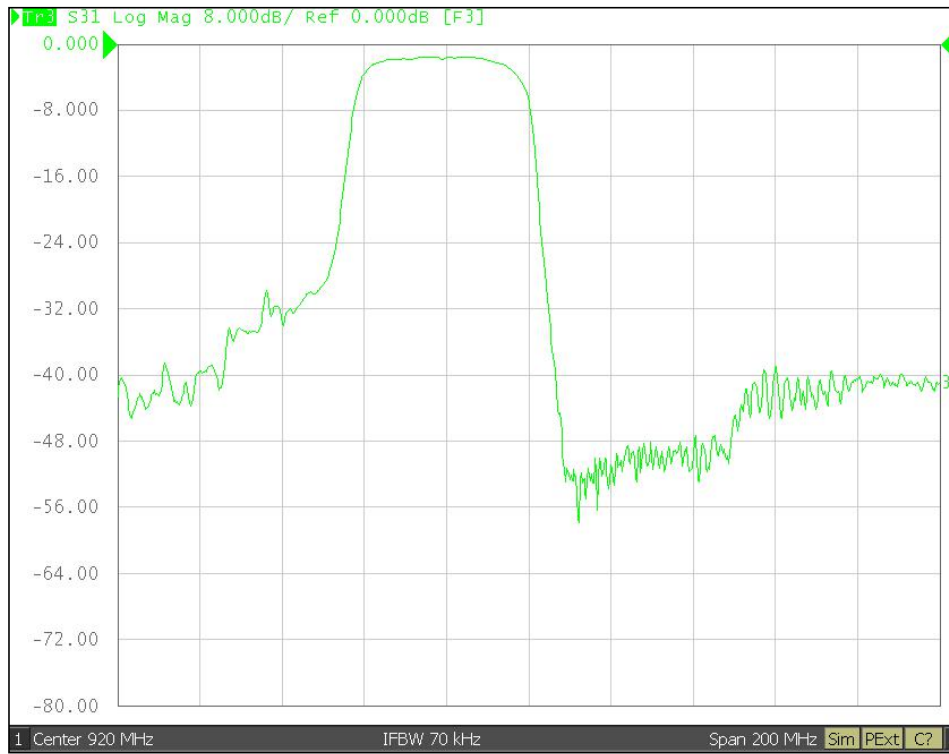
No.	Item		Frequency (MHz)	Specification		
				Min	Max	Typ.
1	Tx to Rx	Isolation	882.4~912.6	50		54
2			927.4~957.6	50		53

Table4. Electrical Specification

No.	Item		Specification		
1	Terminating Match Impedance	ANT Port	50Ω // 6.2nH	Single-ended	
2		Tx Port	50Ω+2nH	Single-ended	
3		Rx Port	50Ω+2nH	Single-ended	

Frequency Performance

Tx to ANT



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ANT to RX



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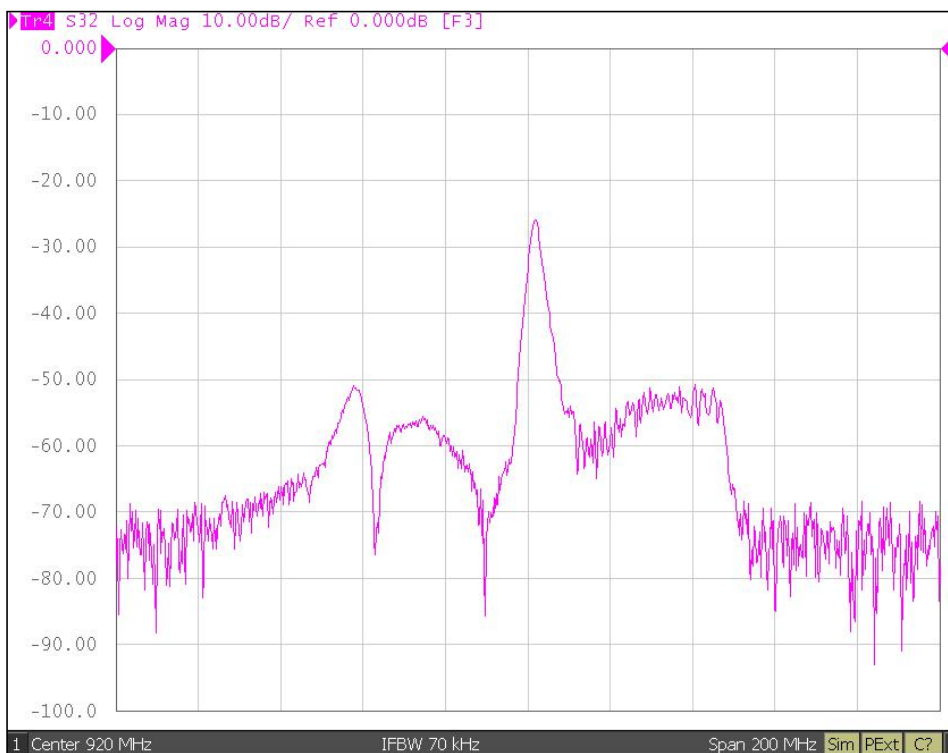
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VSWR



Isolation



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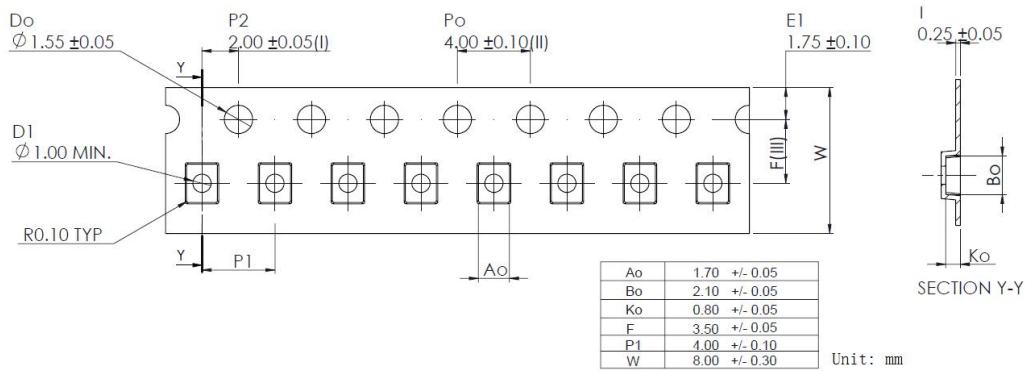
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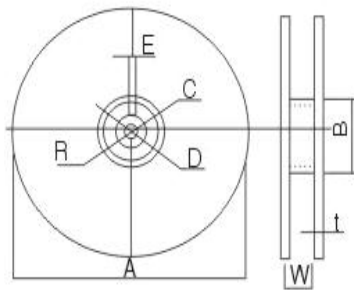
6 包装 Packaging

① 编带尺寸 Dimensions of Tape:



② 带轮尺寸 Dimensions of Reel

Unit: mm



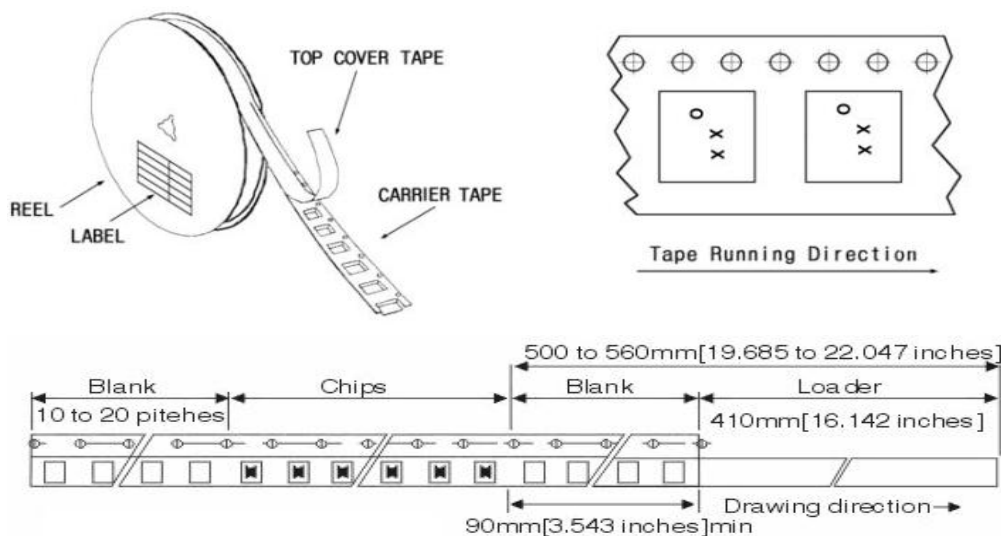
Reel material: PS (Polystyrene)

A	178±2
B	60±2
C	13.0±0.5
D	21.0±0.8
E	2.0±0.5
W	8.5±1.0
t	1.2±0.2
R	1.0±0.25

③ 编带抗拉强度 Pulling strength of tapes:

载带 Carrier tape	10N or more (1kgf or more)
上盖带 Cover tape	5N or more (1kgf or more)

④ 编带简图及拉伸方向 Taping figure and drawing direction:



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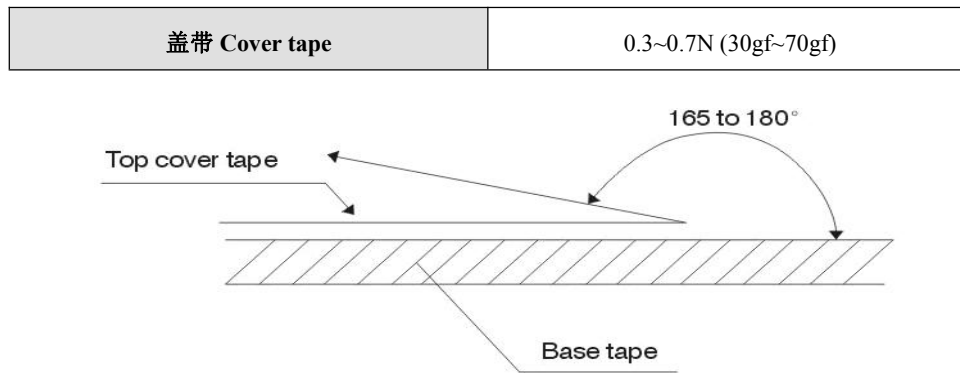
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⑤ 盖带的剥离强度 Peeling strength of cover tape:



测试条件 Test condition:

- 1) 剥离角度 peel angle: 165°~180° vs. carrier tape.
- 2) 剥离速度 peel speed: 300mm/min±10%.

⑥ 包装数量 Packaging quantities: 3000 PCS / Reel

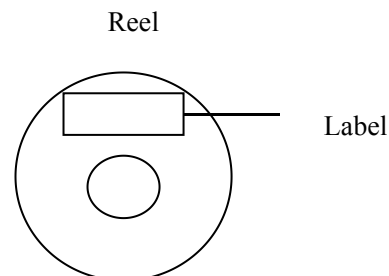
7 装箱清单及标志 Packing documents and marking

① 包装文件 Packing documents

- a. 装箱清单 Packing list.
- b. 合格证书 Certificate of compliance.

② 盘上标记 Marking on reels:

- a. 麦捷料号 MICROGATE Part No.
- b. 生产批号 Lot number
- c. 盘装数量 Quantity per reel
- d. 检验员号 Inspector No.



以上内容必须在标签上注明.All above shall be shown on marking label

麦捷公司标签如下所示: MICROGATE marking label will be as following:

MICROGATE		
CUSTOMER:	P. O. NO	
CUSTOMER PART NO:	DATE CODE	LOT NO
MG PART NO:	QUANTITY	INSP. NO
MG PART NO		

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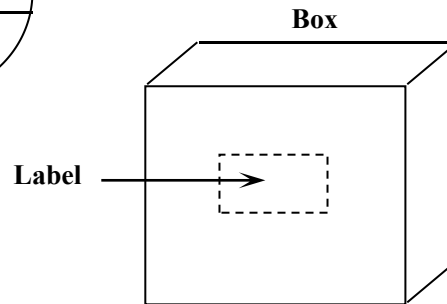
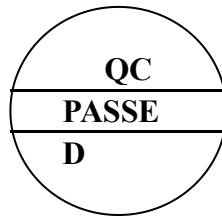
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检验合格后,检验员在标签上盖上合格章。合格章如下所示: The eligible reels will be pressed a mark onto the surface. The mark will be as following:



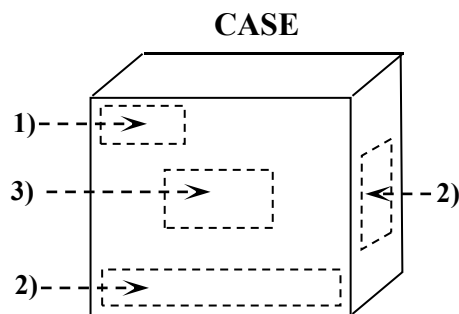
③ 内包装盒标记: Marking on inner box

- a. 型号 MICROGATE part No.
- b. 每盒数量 Quantity per box
- c. 包装日期 Date

以上内容必须在标签上注明 (标签见 7.2 所示)。Above shall be shown on marking label (The marking label is shown in item 7.2).

④ 外包装箱标记 Marking on outer case:

- 1) 制造商 Manufacturer: “MICROGATE” ①
“中国深圳制造” “Made in Shenzhen CHINA” ②
- 2) 发运标记 Ship marking:
“向上” “UP”, “小心轻放” “HAND CARE”, “防潮” “MOISTURE-PROOF”.
- 3) 包装标签包括以下内容 Packing label include the following:
 - a. 型号 MICROGATE Part No
 - b. 总数量 Total quantity per case
 - c. 包装日期 Date;



以上内容必须在标签上注明。(参见 7.2 所示)

All above shall be shown on marking label. (The marking label is shown in item 7.2)

8 保管 Storage

保存条件 Storage conditions

- 存放货物的库房应满足以下条件 Products should be storage in the warehouse on the following conditions

温度 Temperature: $\leq 40^{\circ}\text{C}$

湿度 Humidity : $\leq 70\%$ relative humidity

不允许温、湿度有极剧变化。No rapid change on temperature and humidity

- 禁止将产品保管在腐蚀性物质中，例如硫磺、氯气或者酸，否则将引起端头氧化，导致降低焊接性。
Don't keep products in corrosive gases such as sulfur, chlorine gas or acid, or it may cause oxidization of electrode, resulting in poor solder ability.
- 为了避免受潮气、灰尘等物质的影响，产品应保管于货架上。Products should be storage on the palette for the prevention of the influence from humidity, dust and so on.
- 产品保管在库房中时，应避免热冲击，振动以及直接光照等等。Products should be storage in the warehouse without heat shock, vibration, and direct sunlight and so on.
- 产品应密封包装 Products should be storage under the airtight packaged condition.