乐山无线电股份有限公司
Leshan Radio Company, Ltd

SM220A thru SM2100A

Schottky Barrier Rectifiers
Reverse Voltage 20 to100V

FEATURES

* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
* Low power loss,high efficiency
* For use in low voltage high frequency inverters, free wheeling,and polarity protection applications
* Guardring for over voltage protection
* High temperature soldering guaranteed: 260°C/10 seconds at terminals



Mechanical Data

Case: JEDEC DO-214AC, molded plastic over glass die

Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.0023 oz., 0.065 g

Handling precautin:None

We declare that the material of product compliance with ROHS requirements

1.Maximum & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	SM220A	SM230A	SM240A	SM250A	SM260A	SM280A	SM2100A	Unit
device marking code		S22	S23	S24	S25	S26	S28	S210	
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	V
Maximum RSM voltage	V_{RSM}	14	21	28	35	42	56	70	V
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	V
Maximum average forward rectified current (See fig. 1)	IF(AV)	2.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	60							A
Typical thermal resistance (Note 1)	RθJA	50							°C/W
Operating junction and storage temperature range	TJ, TSTG	–40 to +150							°C

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	SM220A	SM230A	SM240A	SM250A	SM260A	SM280A	SM2100A	Unit
Maximum instantaneous forward voltage at 2.0A	V_F	0.50			0.70		0.85		V
Maximum DC reverse current TA = 25°C at rated DC blocking voltage TA = 100°C	IR	0.1 10.0							mA
Typical junction capacitance at 4.0V, 1MHz	CJ	110							PF

NOTES:

1. 8.0mm2 (.013mm thick) land areas

SM220A thru SM2100A

2.Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

Fig. 1 – Forward Current Derating Curve

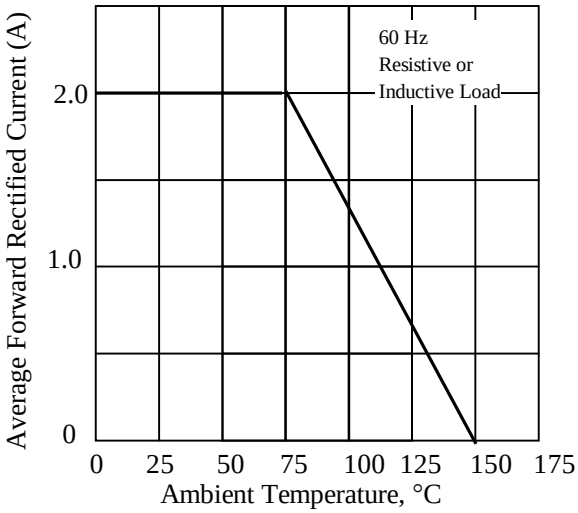


Fig. 2 – Maximum Non-repetitive Peak Forward Surge Current

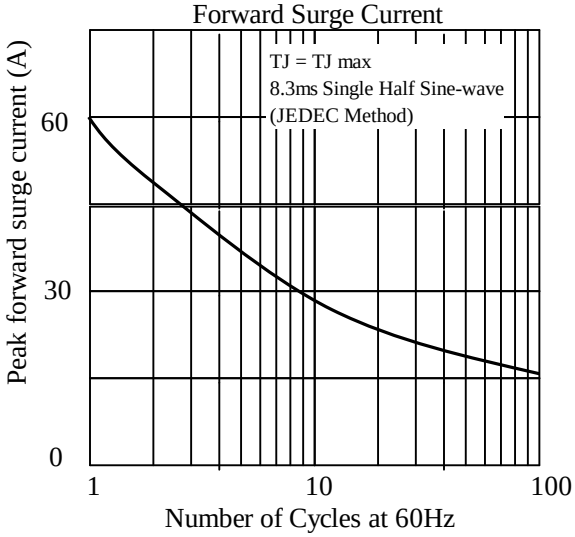


Fig 3. – Typical Instantaneous Forward Characteristics

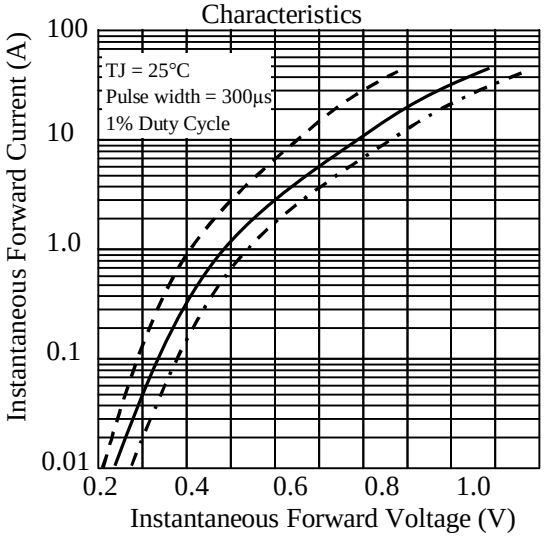


Fig 4. – Typical Reverse Characteristics

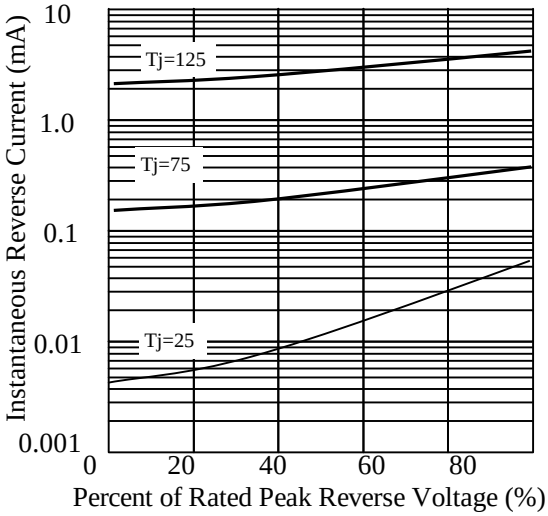


Fig 5. – typical transient thermal impedance

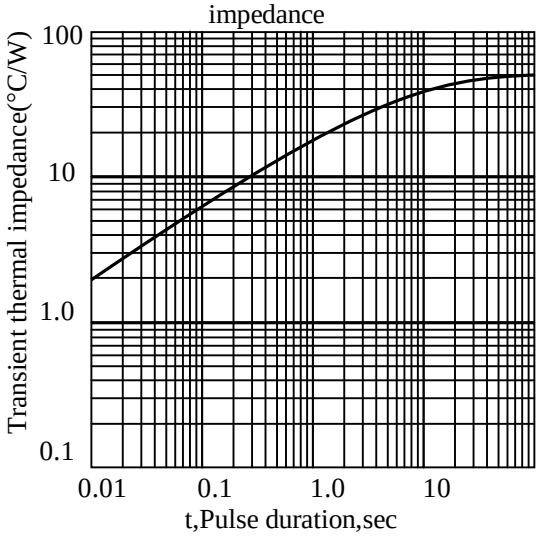
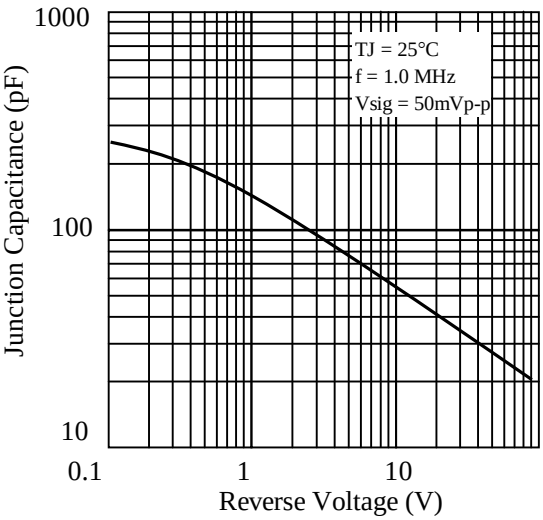


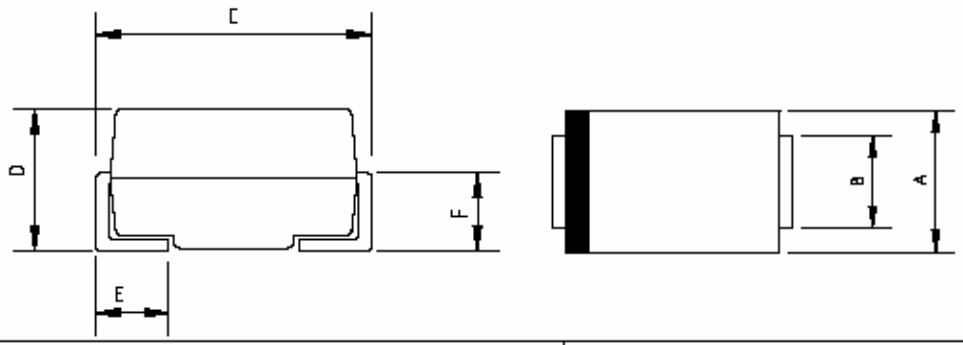
Fig 6. – Typical Junction Capacitance



SM220A thru SM2100A

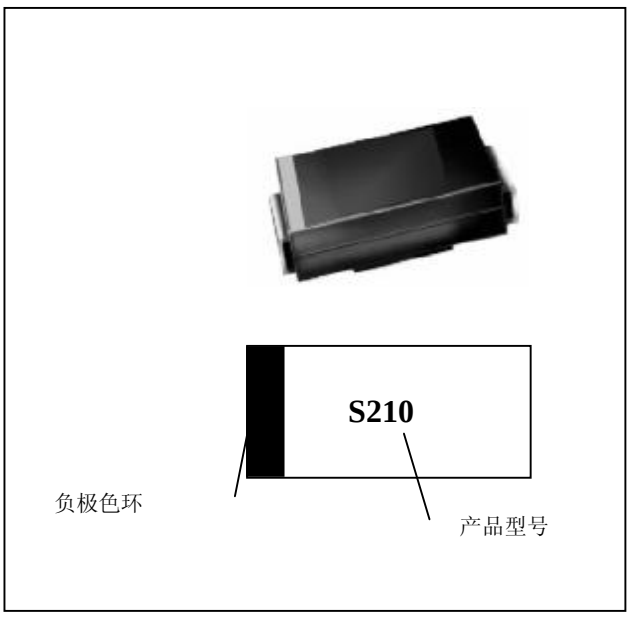
3. dimension:

Package outline

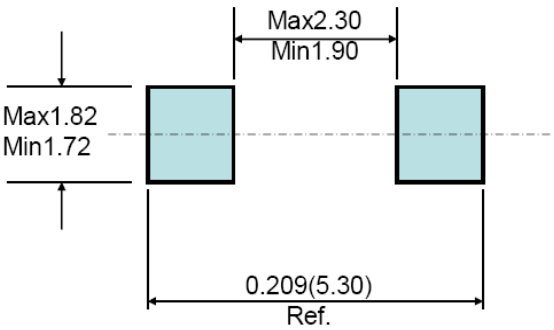


Dimensions				
	inches		mm	
	Min.	Max.	Min.	Max.
A	0.086	0.110	2.2	2.8
B	0.051	0.067	1.3	1.7
C	0.185	0.209	4.7	5.3
D	0.067	0.100	1.7	2.55
E	0.035	0.059	0.9	1.5
F	0.035	0.059	0.9	1.5

Note:
DO-214AC
molded plastic case
The marking band indicates the cathode



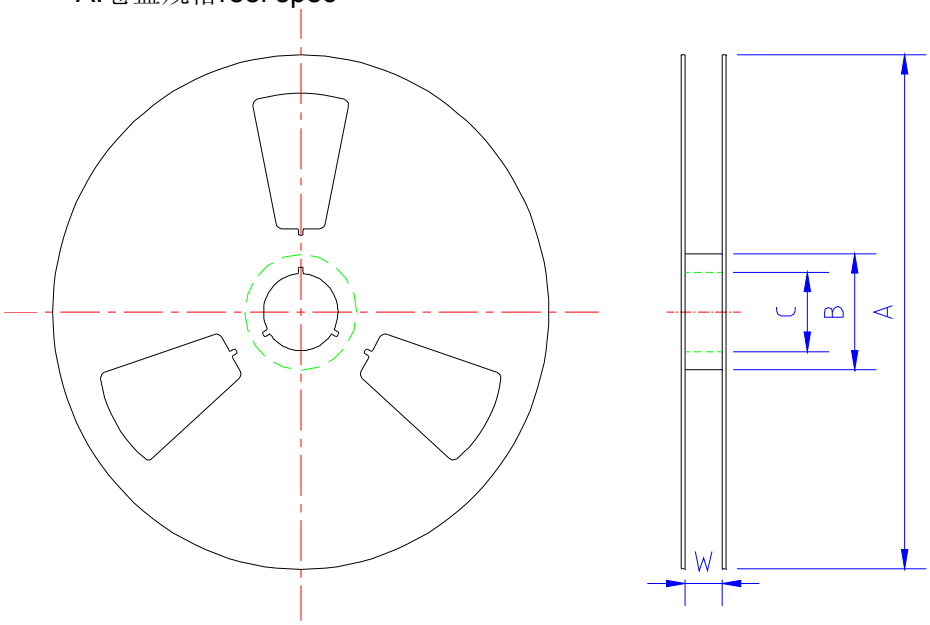
Mounting Pad Layout
---SMA



SMD产品通用包装材料规格以及包装产品数量
General packaging materials spec. and quantity

1.1 卷装 reel

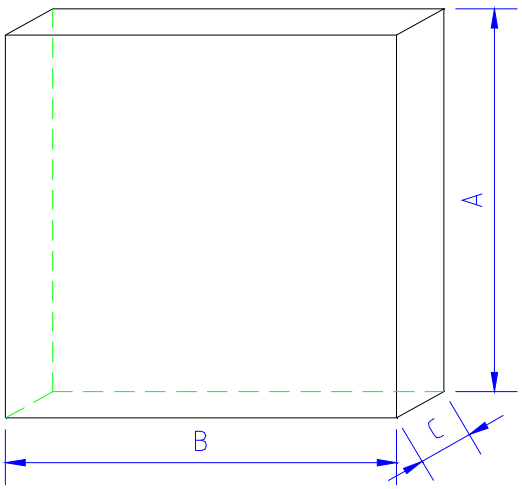
A.卷盘规格reel spec



单位：mm

规格	A	B	C	W	每卷数量
SMA 7"卷盘	177.0±2.0	54.0±0.5	13.0±0.5	13.2±0.2	2K
SMA13"卷盘	330.0±2.0	75.0±0.5	13.0±0.5	13.2±0.2	5K
SMB13"卷盘	330.0±2.0	75.0±0.5	13.0±0.5	13.5±0.5	3K
SMC13"卷盘	330.0±2.0	75.0±0.5	13.0±0.5	17.0±0.5	3K

B. 13"卷盘内盒 inner box



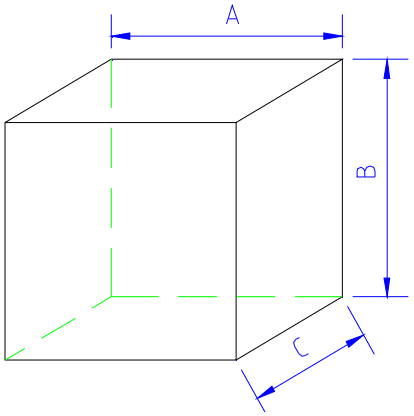
单位：mm

	A	B	C
尺寸	335±5.0	335±2.0	40±1.0

按以上包装方式，产品包装数量：**quantity**

规格	每盒数量
SMA13"卷盘	10K
SMB13"卷盘	6K
SMC13"卷盘	6K

C. 7"卷盘盒 box



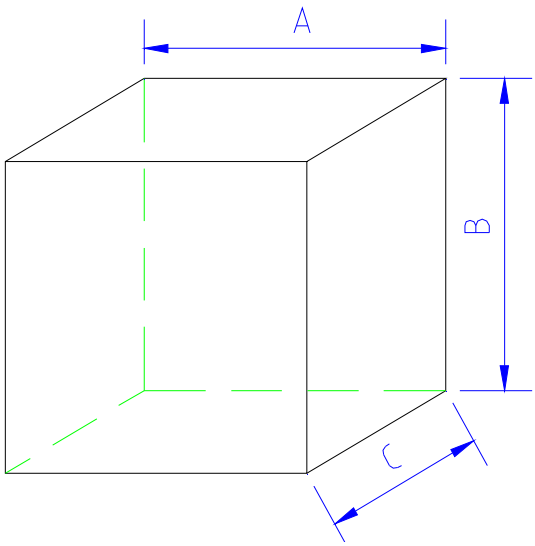
单位：mm

	A	B	C
尺寸	188±2.0	188±2.0	138±2.0

按以上包装方式，产品包装数量：quantity

	每盒数量
7"卷盘	16K

D. 卷盘外箱 reel carton



单位：mm

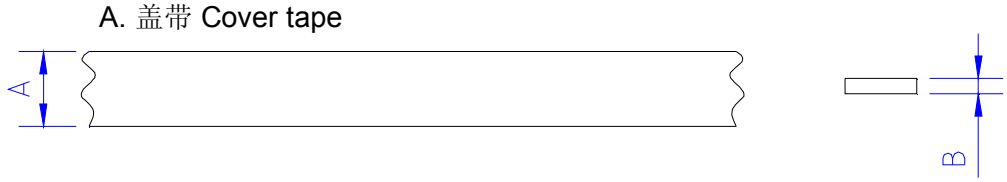
	A	B	C
尺寸	350±2.0	340±2.0	350±2.0

按以上包装方式，产品包装数量：

规格	每箱数量
SMA 7"卷盘	80K
SMA13"卷盘	80K
SMB13"卷盘	48K
SMC13"卷盘	36K

1.2 编带规格 tape spec

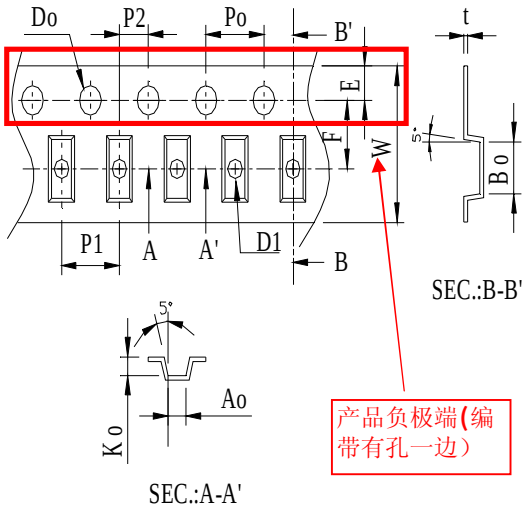
A. 盖带 Cover tape



单位：mm

	A	B
SMA	9.30±0.10	0.068±0.005
SMB		
SMC	13.30±0.10	

B. 载带

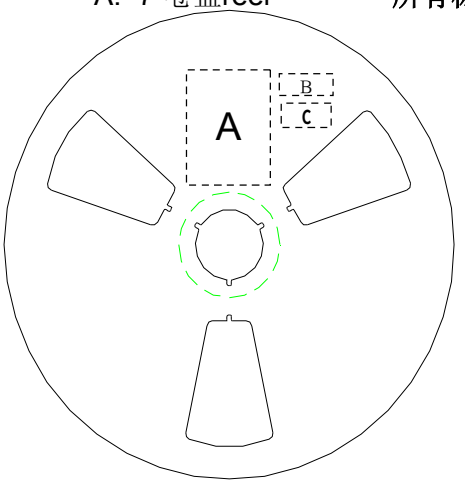


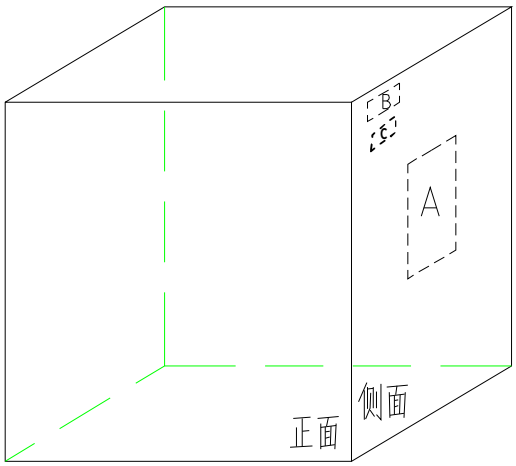
类型	SMA	SMB	SMC
W	12±0.3	12±0.3	16±0.3
P1	4±0.1	8±0.1	8±0.1
E	1.75±0.1	1.75±0.1	1.75±0.1
F	5.5±.05	5.5±0.05	7.5±.05
D0	1.55±0.05	1.55±0.05	1.55±0.05
D1	1.5±0.1	1.55±0.05	1.55±0.05
P0	4±0.1	4±0.1	4±0.1
P2	2±0.05	2±0.05	2±0.05
10P0	40±0.2	40±0.2	40±0.2
A0	2.79±0.1	3.8±0.1	6.05±0.1
B0	5.33±0.1	5.4±0.1	8.31±0.1
K0	2.36±0.1	2.45±0.1	2.54±0.1
T	0.25±0.05	0.25±0.05	0.25±0.05

2、SMD产品通用包装规范 General spec of SMD

5.2.1国内客户domestic

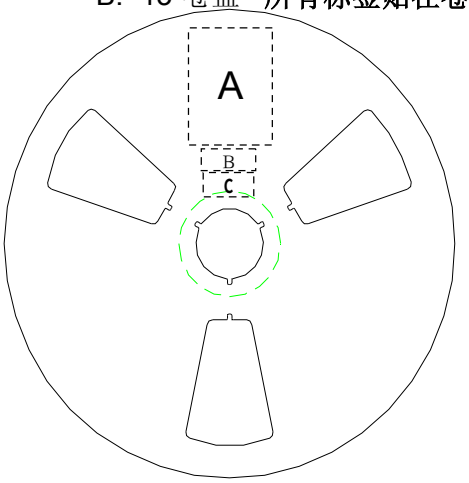
A. 7"卷盘reel 所有标签贴在卷盘负极 **all the label on cathode side**

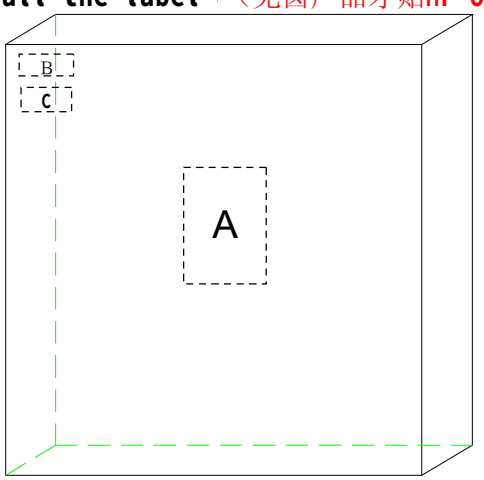




A处:贴LRC标签; B处:贴ROHS标签 C处:贴无卤标签 HF label

B. 13"卷盘 所有标签贴在卷盘负极 **all the label**（无卤产品才贴HF only）

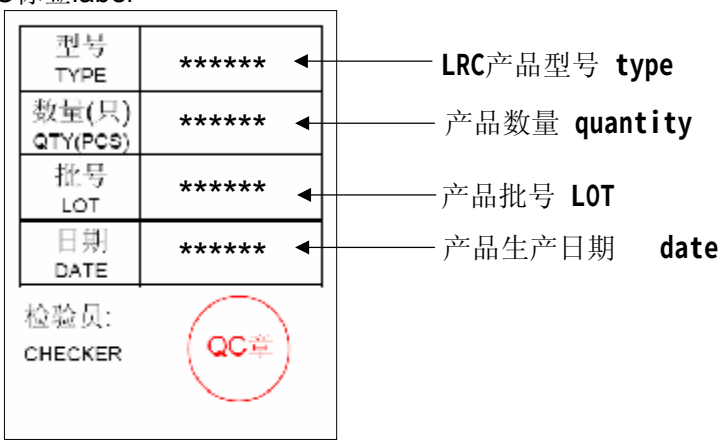




A处:贴LRC标签; B处:贴ROHS标签 C处:贴无卤标签（无卤产品才贴HF only）

C. 标签要求label spec：

LRC标签label



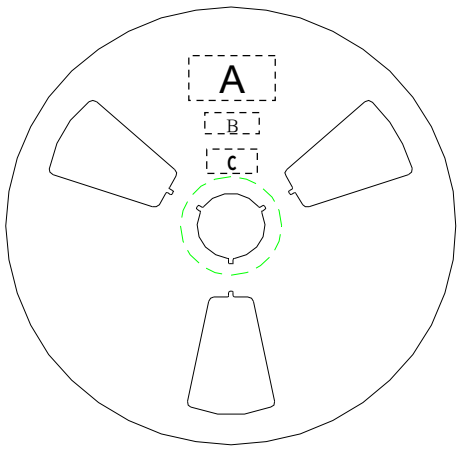
ROHS标签



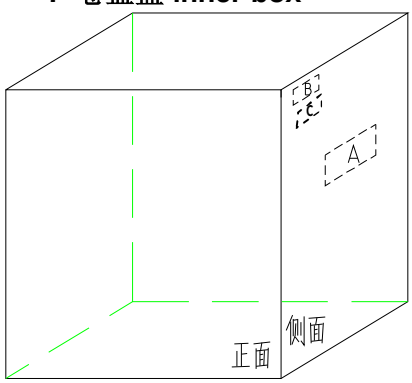
无卤标签 HF label

Green

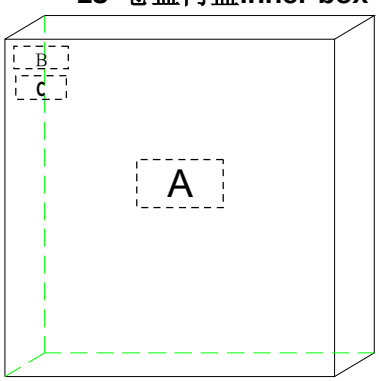
2.2 国外客户 overseas 所有标签贴在卷盘负极 all the label on cathode side



7"卷盘盒 inner box



13"卷盘内盒inner box



A处:贴LRC标签; B处:贴ROHS标签 C处:贴无卤标签HF label

（无卤产品才贴HF only）

LRC标签label

TYPE:******	← LRC产品型号
MARK:******	← 印字型号
Q'TY:******	← 产品数量
DATE:******	← 产品生产日期

ROHS标签



无卤标签 HF label



注意事项NOTE:

1. 13"卷盘内盒装好产品,需用热缩膜包装;13"reel'inner box must be packed by shrink film
2. 所有编带产品卷装完成后,用白色胶带将编带粘牢;
   every tape after packing，must be fixed by white adhesive tape

3.1产品出厂检验报告 testing report of the OQC

每批出货时，需要附上出厂检验报告 **every lot must with test report**

3.2尾箱

同一编码每批次只允许出现一个尾数箱，对于尾数物料，须用缓冲材料对空余部分填充好，保证物料在受到一定的外作用力下不发生明显移动，且物料间无碰撞。

The same coding is only one ending for each batch box materials for the mantissa to be good filled with cushioning material.

SM220A thru SM2100A

4. Update Record

版次	更新记录	更新作者	更新日期
1	第一版	周杰	2010-3-23
2	结温和存储温度由125度修改为150度	周杰	2010-9-23
3	1.修正25℃时漏流,由0.5mA修正为0.1mA;2. 增加包装规范		周杰 2011-7-24