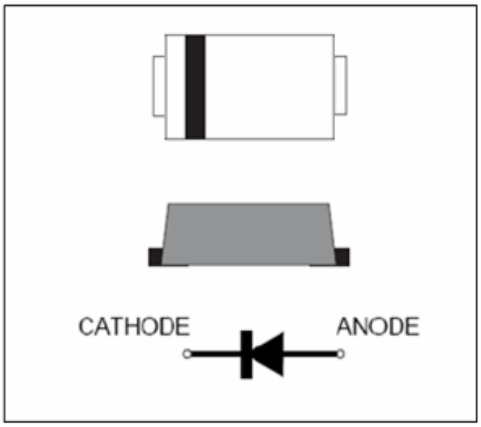
LUMBF205 thru LUMBF260

Glass Passivated Junction Ultra Fast Rectifiers

Reverse Voltage 50 to 600V Forward Current 2.0A

FEATURES

* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
* High temperature metallurgically bonded construction
* Glass passivated chip
* Capable of meeting environmental standards of MIL-S-19500
* For use in high frequency rectifier circuits
* Fast switching for high efficiency
* High temperature soldering guaranteed: 260°C/10 seconds



Mechanical Data

Case: JEDEC SMB-FL, molded plastic body
Terminals: Plated leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.066 g
Handling precautin:None

we declare that the material of product is halogen free (green epoxy compound).

Electrical Characteristic

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

Parameter Symbol	symbol	LUMB F205	LUMB F210	LUMB F215	LUMB F220	LUMB F240	LUMB F250	LUMB F260	Unit
device marking code		UM205	UM210	UM215	UM220	UM240	UM250	UM260	
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	150	200	400	500	600	V
Maximum RSM voltage	V_{RSM}	35	70	105	140	280	350	420	V
Maximum DC blocking voltage	V_{DC}	50	100	150	200	400	500	600	V
Maximum average forward rectified current at TC = 75°C	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 2)	RθJA RθJC	135 25							°C/W
Operating junction and storage temperature range	TJ, TSTG	–50 to +150							°C

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

Parameter Symbol	symbol	LUMB F205	LUMB F210	LUMB F215	LUMB F220	LUMB F240	LUMB F250	LUMB F260	Unit
Maximum Instantaneous Forward Voltage (IF = 2.0 Amps, TJ = 25°C)	V_F	0.93				1.25		1.5	V
Maximum full load reverse current, full cycle average, (note2) (Rated dc Voltage, TJ = 125°C) (Rated dc Voltage, TJ = 25°C)	IR	150 5.0							μA
Typical reverse recovery time (Note 1)	trr	35				50			ns
Typical junction capacitance at 4.0V, 1MHz	CJ	45							PF

NOTES:
1. IF = 0.5A, IR = 1.0A, IRR = 0.25A
2. 8.0mm^2 (.013mm thick) land areas

LUMBF205 thru LUMBF260

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

Fig. 1 – Forward Current Derating Curve

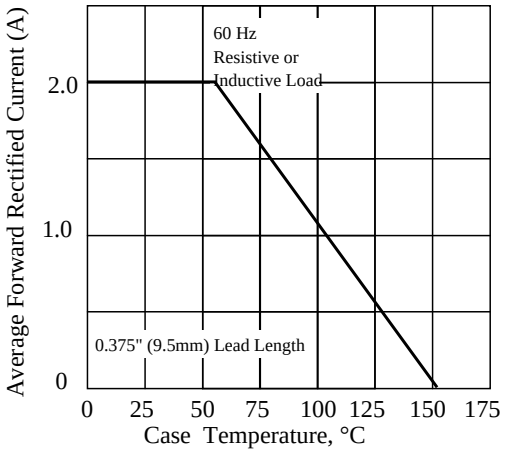


Fig. 2 – Maximum Non-repetitive Peak Forward Surge Current

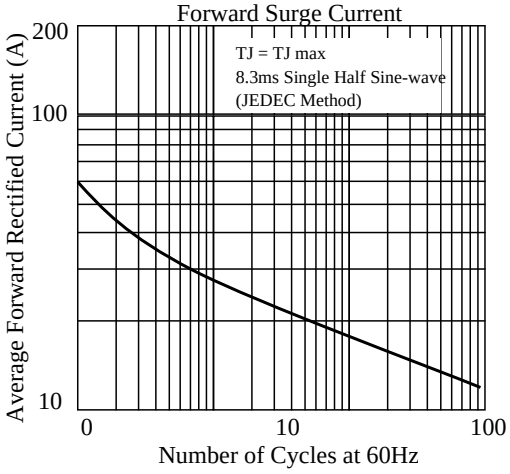


Fig 3. – Typical Instantaneous Forward Characteristics

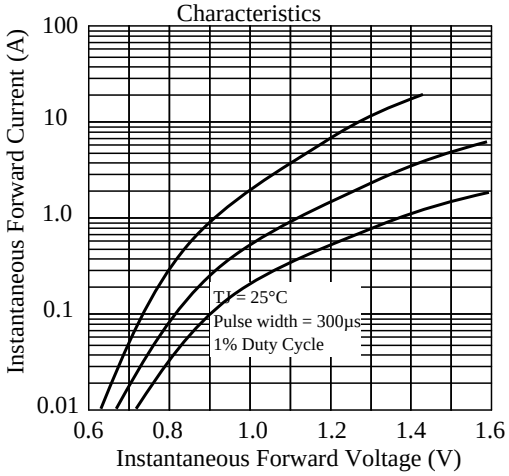


Fig 4. – Typical Reverse Characteristics

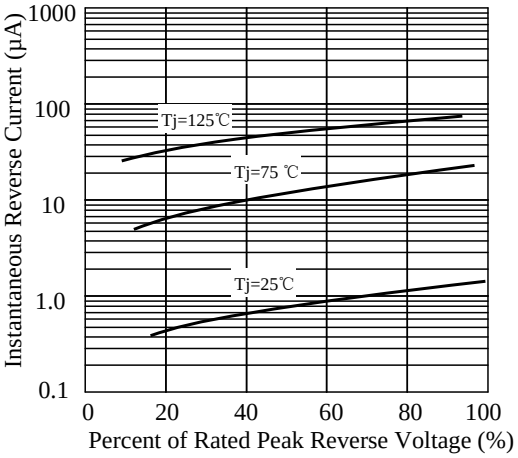


Fig 5. – typical transient thermal impedance

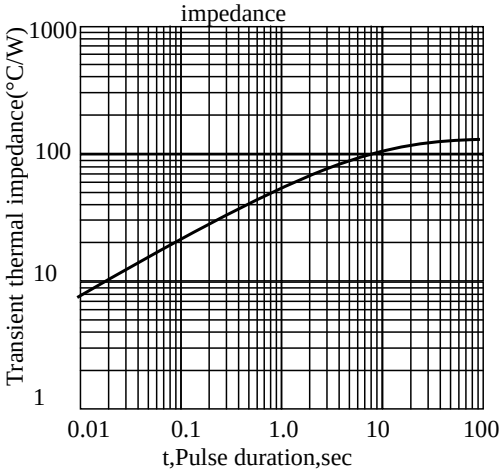
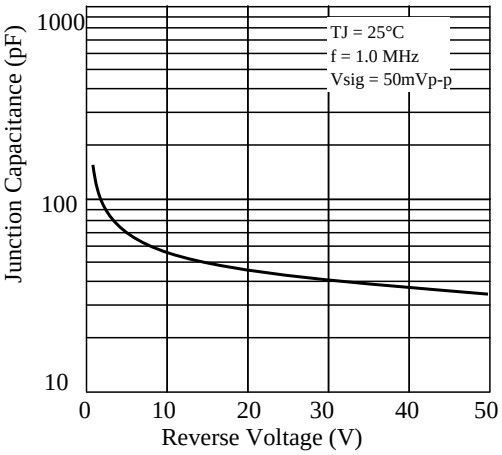


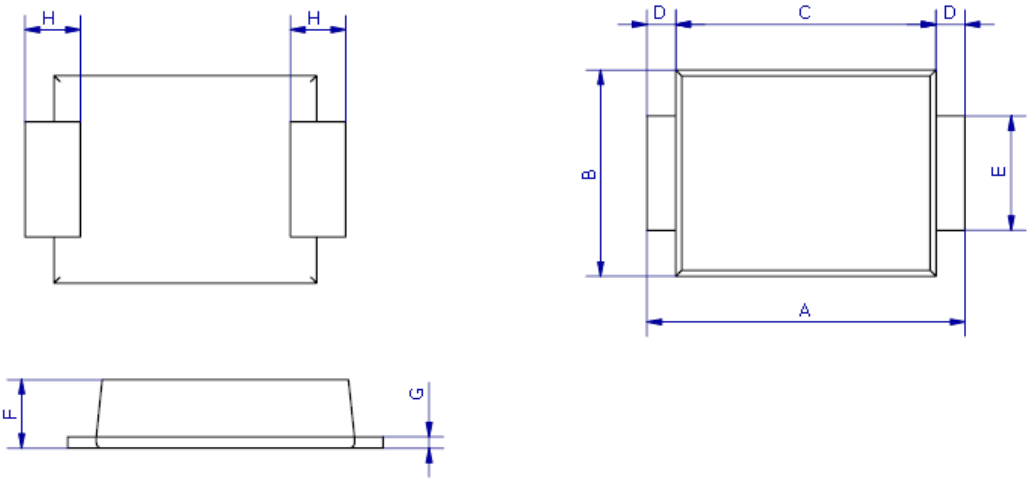
Fig 6. – Typical Junction Capacitance



LUMBF205 thru LUMBF260

3. dimension:

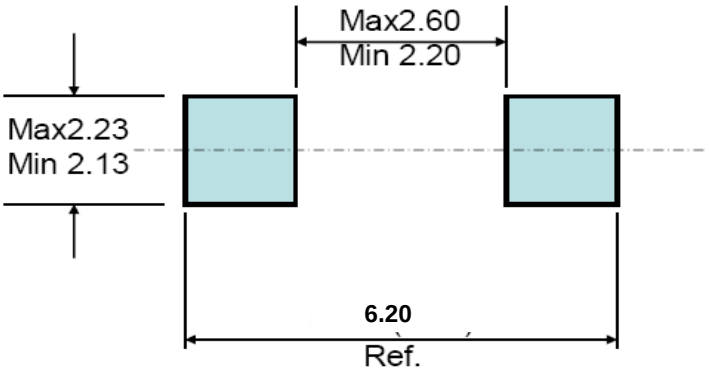
SMB-FL



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	5.3	5.7	0.209	0.224
B	3.4	3.8	0.134	0.150
C	4.3	4.7	0.169	0.185
D	0.45Typ		0.018Typ	
E	1.9	2.1	0.0748	0.08268
F	1.05	1.40	0.04134	0.05512
G	0.2	0.3	0.00591	0.00984
H	0.95Typ		0.037Typ	

Mounting Pad Layout

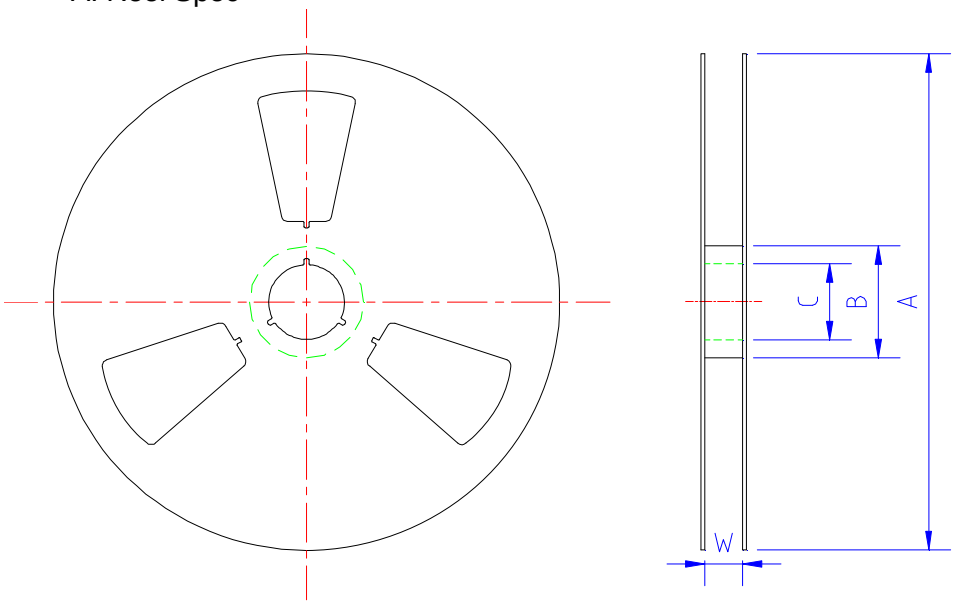
--- SMB-FL



5.1 、SMD Packing Reel Spec & Packing Quantity

5.1.1 Reel Packing

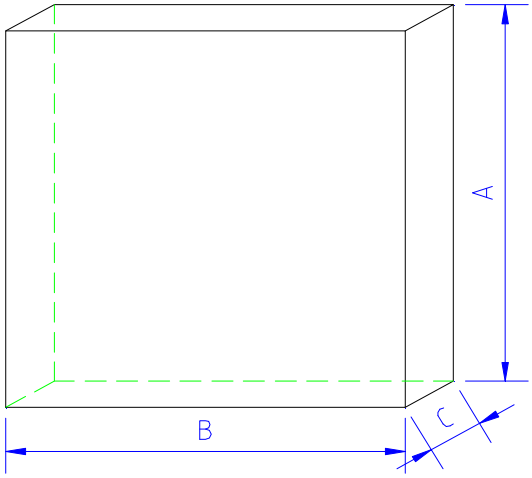
A. Reel Spec



unit：mm

SPEC	A	B	C	W	Quantity/Reel
SMA-FL 7" reel	177.0±2.0	54.0±0.5	13.0±0.5	13.2±0.2	3K
TO277 13" reel	330.0±2.0	75.0±0.5	13.0±0.5	13.2±0.2	5K
SOD123FL 7" reel	177.0±2.0	50.0±0.5	13.0±0.5	9.4±1.5	3K
SOD323HE 7" reel	177.0±2.0	50.0±0.5	13.0±0.5	9.4±1.5	3K
SMB-FL 13" reel	330.0±2.0	75.0±0.5	13.0±0.5	13.2±0.2	5K

B. 13" reel packing box



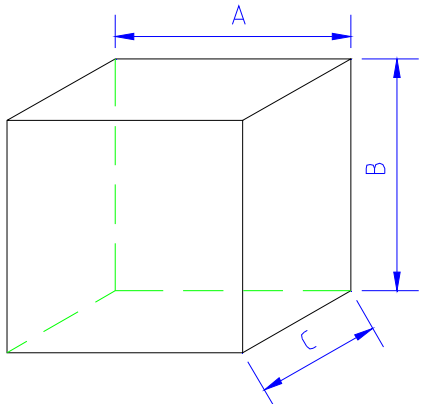
unit：mm

	A	B	C
size	335±5.0	335±2.0	40±1.0

as per above packing

Spec	Q'ty/Box
TO277 13" reel	10K
SMB-FL 13" reel	10K

C. 7" reel packing box



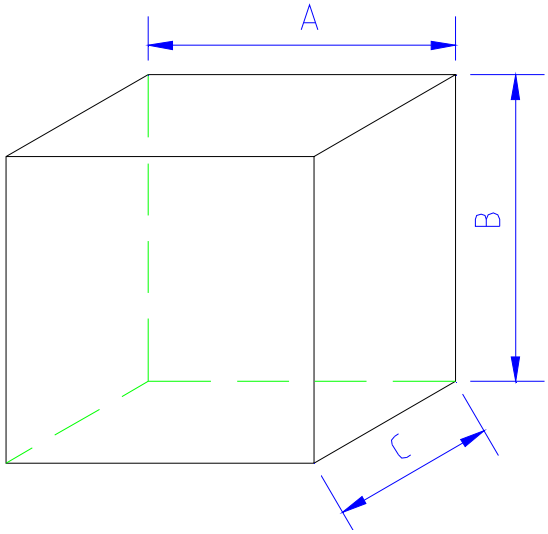
unit：mm

	A	B	C
SMA-FL SOD123FL SOD323HE	186±2.0	139±2.0	185±2.0

as per above packing

	Q'ty/Box
SMA-FL	30K
SOD123FL	30K
SOD323HE	30K

D. reel packing carton



unit：mm

	A	B	C
size	350±2.0	340±2.0	350±2.0

as per above packing

Spec	Q'ty/Carton
TO277 13" reel	80K
SMB-FL 13" reel	80K

unit：mm

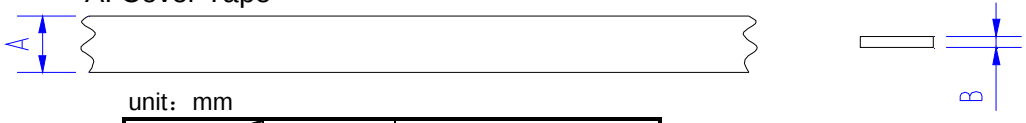
	A	B	C
SMA-FL SOD123FL SOD323HE	455±2.0	400±2.0	410±2.0

as per above packing

Spec	Q'ty/Carton
SMA-FL 7" reel	360K
SOD123-FL 7" reel	360K
SOD323HE 7" reel	360K

5.1.2 Tape Spec

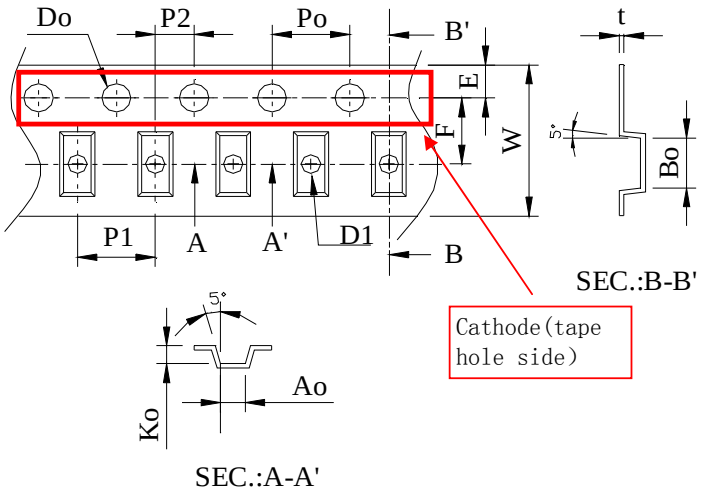
A. Cover Tape



unit：mm

	A	B
SMA-FL SMB-FL TO277	9.5±0.10	0.062±0.007
SOD123FL SOD323HE	5.4±0.10	

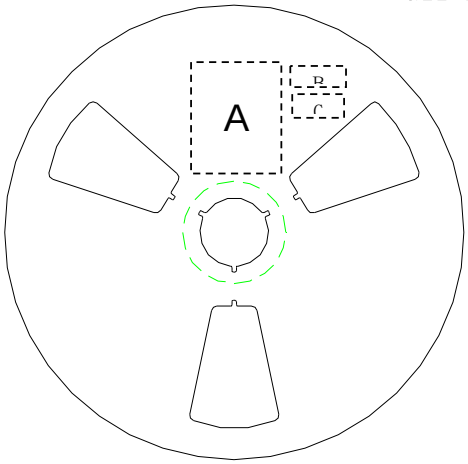
B. Carrier Tape

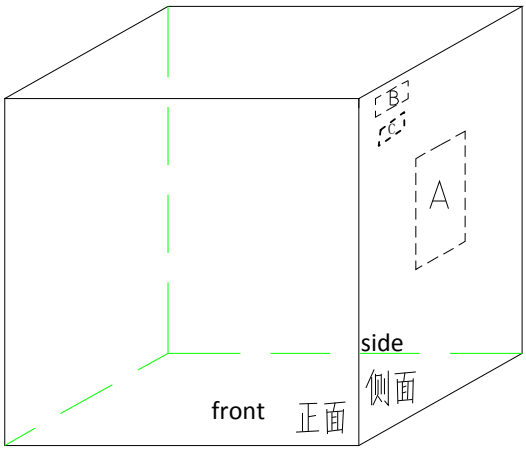


Item	SOD323HE	SOD123FL	SMA-FL	SMB-FL	TO277
W	8±0.3	8±0.3	12±0.3	12±0.3	12±0.3
P1	4±0.1	4±0.1	4±0.1	8±0.1	8±0.1
E	1.75±0.1	1.75±0.1	1.75±0.1	1.75±0.1	1.75±0.1
F	3.5±.05	3.5±.05	5.5±.05	5.5±0.05	5.5±.05
D0	1.55±0.05	1.55±0.05	1.55±0.05	1.55±0.05	1.55±0.05
D1	1.1±0.1	1.1±0.1	1.5±0.1	1.55±0.05	1.5±0.1
P0	4±0.1	4±0.1	4±0.1	4±0.1	4±0.1
P2	2±0.05	2±0.05	2±0.05	2±0.05	2±0.05
10P0	40±0.2	40±0.2	40±0.2	40±0.2	40±0.2
A0	1.45±0.1	1.95±0.1	2.83±0.1	3.8±0.1	4.3±0.1
B0	2.75±0.1	3.95±0.1	4.75±0.1	5.75±0.1	6.8±0.1
K0	0.80±0.1	1.30±0.1	1.42±0.1	1.4±0.1	1.35±0.1
T	0.25±0.05	0.25±0.05	0.25±0.05	0.25±0.05	0.25±0.05

5.2、SMD Power Diode General Packing Spec

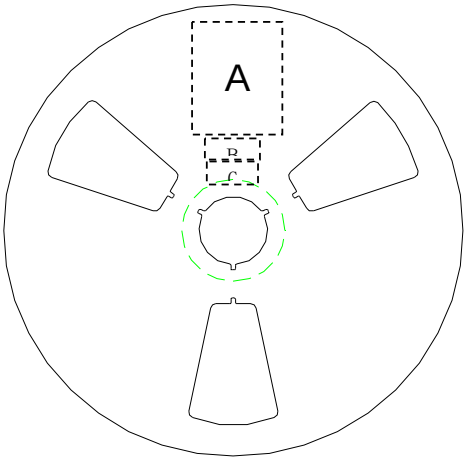
A. 7" reel all labels will be at cathode side of reel ;

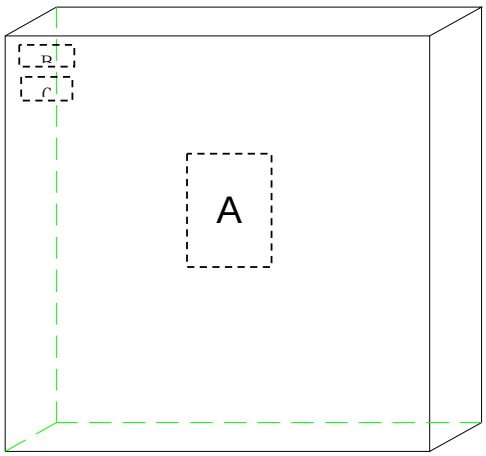




A:LRC label; B:Environment Label C:Halide free label

B. 13" reel





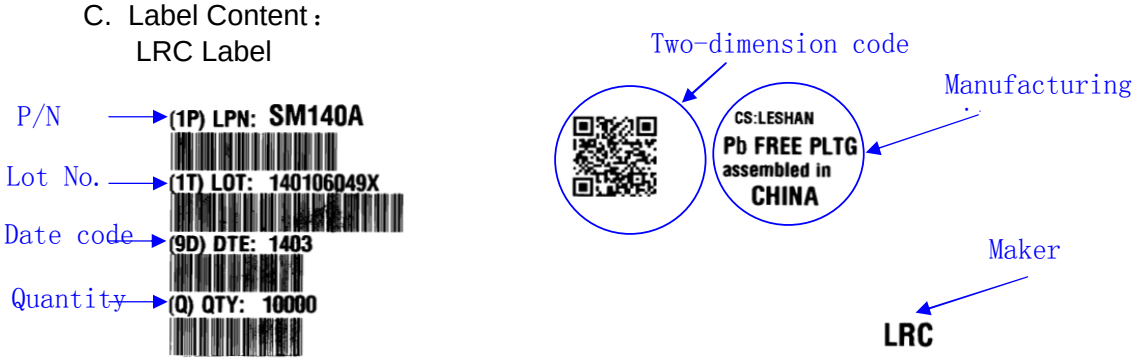
A:LRC label; B:Environment Labe C:Halide free label

C.Tape lead: face anode side of the reel,upper side is the tape lead position. All labels are at cathode side of the reel.



C. Label Content：

LRC Label



lot: 140106049X: 140106---2014/1/6；049----lot number:49；X：product code

Environment Label



Halide-free Label



LUMBF205 thru LUMBF260

4. Update Record

版次	更新记录	更新作者	更新日期
1	第一版	周杰	2014.04.30