

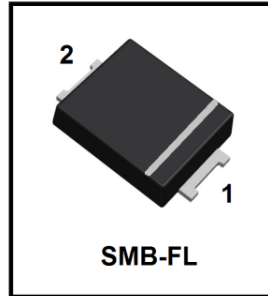
# LUMBF105 thru LUMBF160

## Glass Passivated Junction Ultra Fast Rectifiers

### Reverse Voltage 50 to 600V Forward Current 1.0A

#### 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:** 64mg

**Handling precaution:** None

#### Electrical Characteristic

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

Parameter Symbol	symbol	LUMB F105	LUMB F110	LUMB F115	LUMB F120	LUMB F140	LUMB F150	LUMB F160	Unit
device marking code		UM105	UM110	UM115	UM120	UM140	UM150	UM160	
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	$I_F(AV)$	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30							A
Typical thermal resistance (Note 2)	R $\theta$ JA R $\theta$ JL	150 20							°C/W
Operating junction and storage temperature range	TJ, TSTG	-50 to +150							°C



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

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

Parameter Symbol	symbol	LUMB F105	LUMB F110	LUMB F115	LUMB F120	LUMB F140	LUMB F150	LUMB F160	Unit
Maximum Instantaneous Forward Voltage (IF = 1.0 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

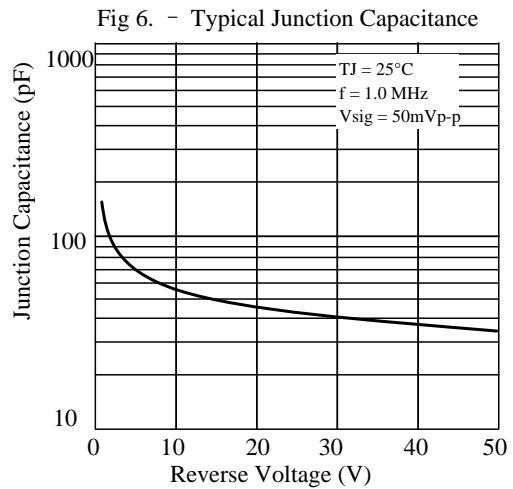
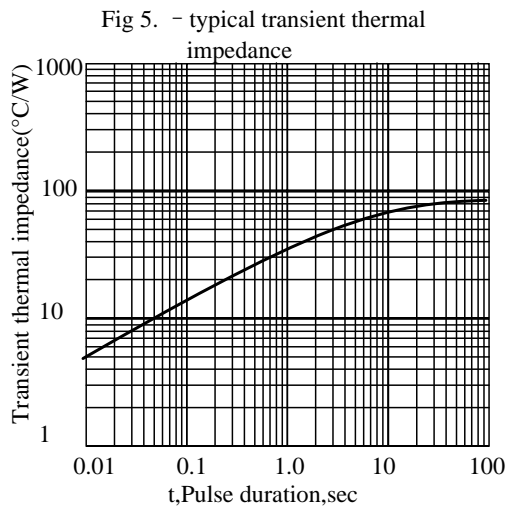
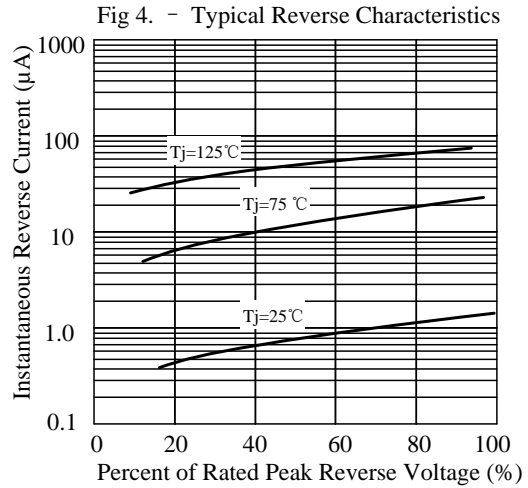
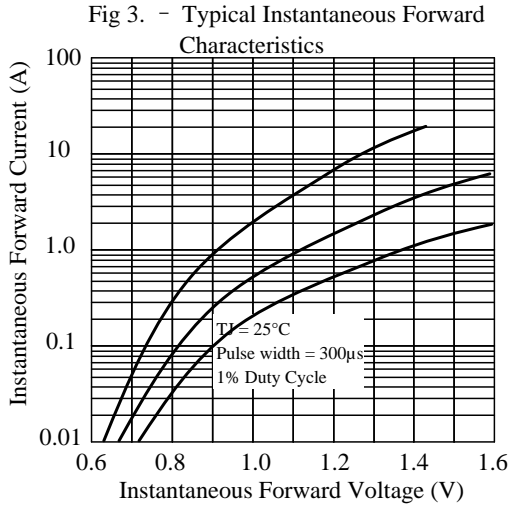
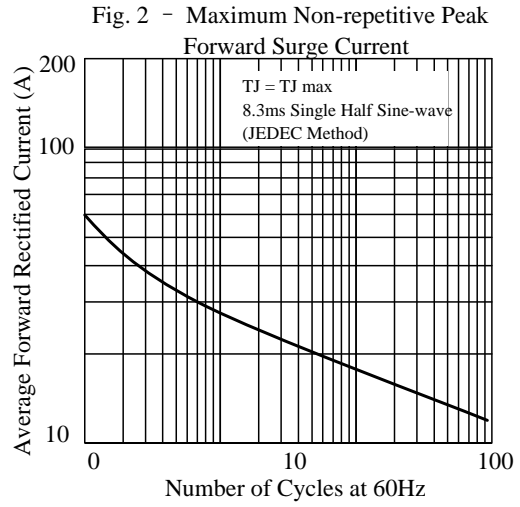
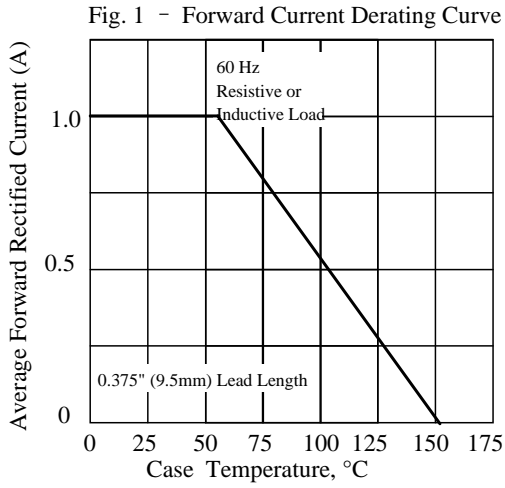
NOTES:

1. IF = 0.5A, IR = 1.0A, IRR = 0.25A

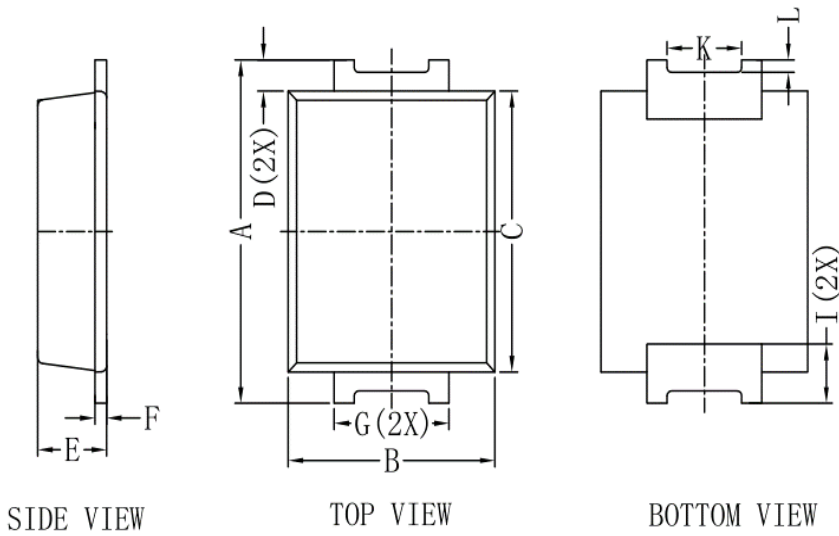
2. FR-4 Board, Heat sinks with single-sided copper foil, copper foil thickness 50μm 1.6\*2.2\*2

# LUMBF105 thru LUMBF160

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

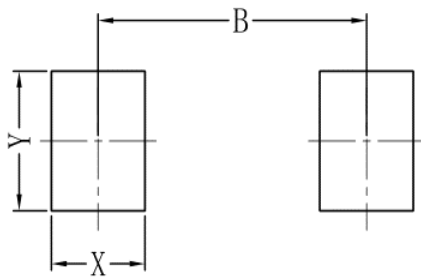


### 3.OUTLINE AND DIMENSIONS



SMB-FL			
DIM	Min	Max	Typ.
A	5.30	5.70	5.50
B	3.40	3.80	3.60
C	4.30	4.70	4.50
D	-	-	0.45
E	1.05	1.40	1.20
F	0.18	0.30	0.22
G	1.90	2.10	2.00
I	-	-	0.95
K	-	-	1.30
L	-	-	0.20
All Dimensions in mm			

### 4.SOLDERING FOOTPRINT



SMB-FL	
DIM	(mm)
X	1.60
Y	2.20
B	4.60

## **DISCLAIMER**

- Curve guarantee in the specification. The curve of test items with electric parameter is used as quality guarantee. The curve of test items without electric parameter is used as reference only.
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8.1.2 Label position and QA stamp position.(Empty area) 标签张贴位置及QA印章位置。(印章盖在标签空白区)

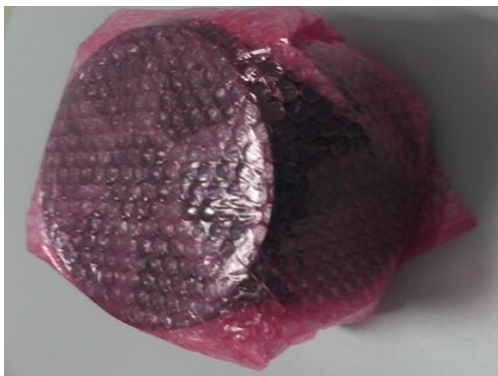


7英寸卷盘标签张贴及QA印章位置



13英寸卷盘标签张贴及QA印章位置

8.1.3 Ensure direction In the same reel. The same steel coil plate direction, With antistatic bubble to package reel. Refer to the below picture.  
同一箱内的卷盘方向一致,用防静电泡沫对卷盘进行包裹。



7英寸卷盘防静电泡沫包裹



13英寸卷盘防静电泡沫包裹

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8.1.4 Put in the antistatic packing box after packaged reels. And QA stamp on the box label .

将包装好的卷盘放入防静电纸箱中，并在盒标签上盖章。



7 英寸卷盘内盒及标签



13 英寸卷盘内盒及标签

8.1.5 Product use printing inner box. 产品使用LRC印字内箱。



7英寸卷盘内箱印字（侧面）



13英寸卷盘内箱印字（正面）

8.1.6 Inner box packing quantity requirement. 内盒包装数量要求。

Product Description	QTY
SOD123-FL	1-10Reels
SOD323-HE	1-10Reels
SMA-FL	1-7Reels
SMB-FL	1-4Reels

8.1.7 With transparent tape sealing. 透明胶带封箱。



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7英寸内箱封盒



13英寸内箱封盒

### 8.1.8 Outer box size and packing quantity requirement, 外箱尺寸及包装数量要求。

Product Description	卷盘尺寸	Height (H)	Width (W)	Length (L)	Max. Qty
Power Device	7 英寸	410mm	400mm	445mm	12
Power Device	13 英寸	410mm	400mm	445mm	5



7 英寸卷盘产品装箱



13 英寸卷盘产品装箱

统一方向



Proprietary Information

# Title: Power Packages Marking & Taping Specification

## 功率封装字模和编带规范

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### 8.2 Standard Products Taping Specification

标准产品编带规范

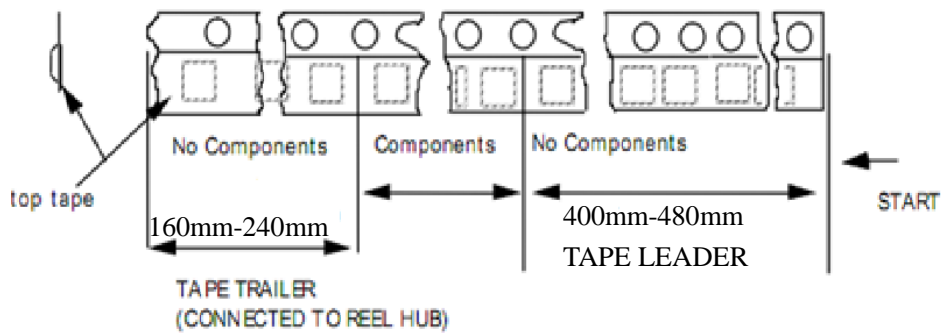
#### 8.2.1 Tape length of no component

空带长度说明

Taping leader length 引导部分: 440mm±40mm , Tape trailer 尾部: 200mm±40mm

Figure 4

Tape Ends For Finished Goods Reel



#### 8.2.2 Component packaging orientation: The cathode lead is close to the carrier tape's index hole.

产品放置方向: 印阴极带引脚邻近载带索引孔







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功率封装字模和编带规范

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## 8.2.3 Tape enwind orientation

编带缠绕方向要求

