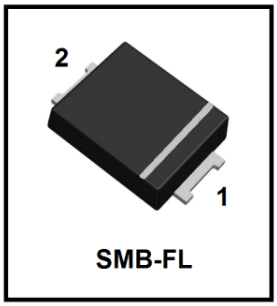
LUMBF105 thru LUMBF160

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 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	LUMBF105	LUMBF110	LUMBF115	LUMBF120	LUMBF140	LUMBF150	LUMBF160	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	IF(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)	RθJA RθJL	150 20							°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	LUMBF105	LUMBF110	LUMBF115	LUMBF120	LUMBF140	LUMBF150	LUMBF160	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)

Fig. 1 – Forward Current Derating Curve

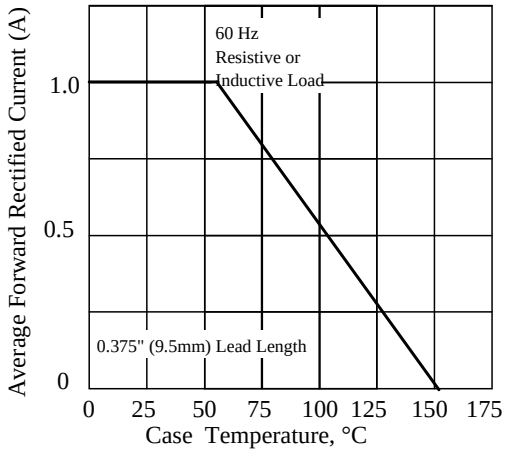


Fig. 2 – Maximum Non-repetitive Peak Forward Surge Current

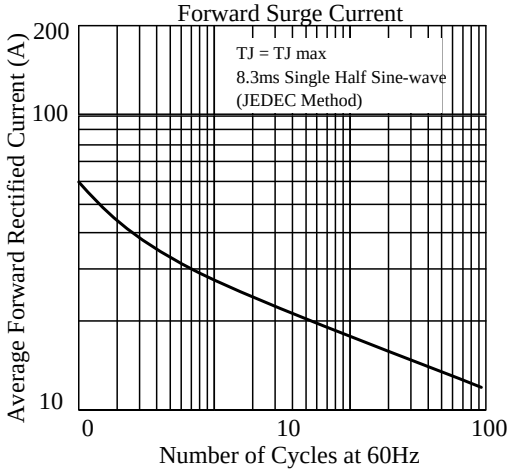


Fig 3. – Typical Instantaneous Forward Characteristics

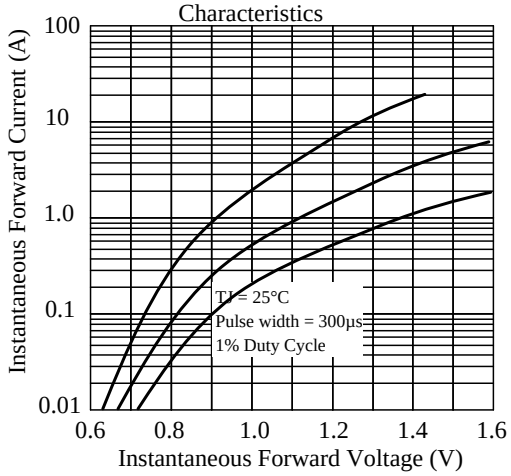


Fig 4. – Typical Reverse Characteristics

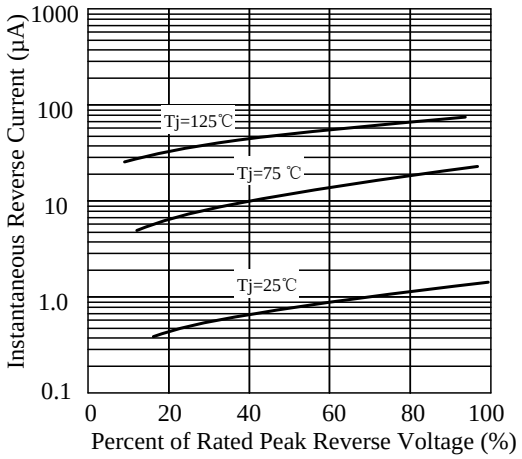


Fig 5. – typical transient thermal impedance

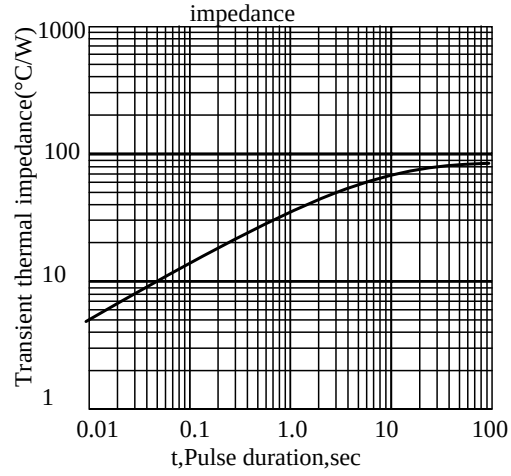
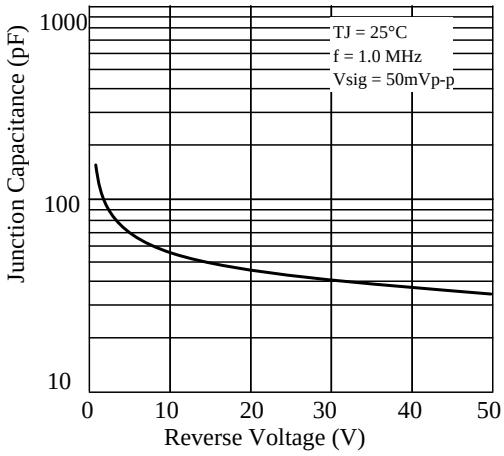
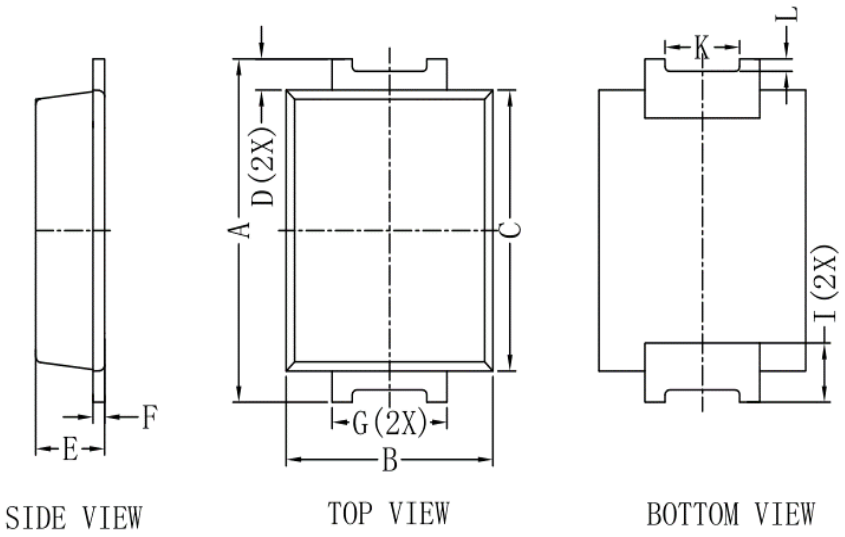


Fig 6. – Typical Junction Capacitance

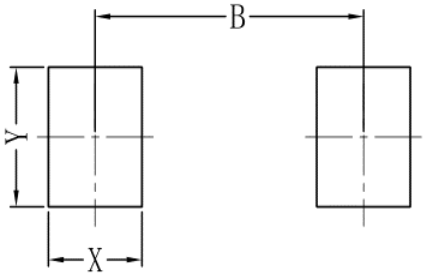


3.OUTLINE AND DIMENSIONS



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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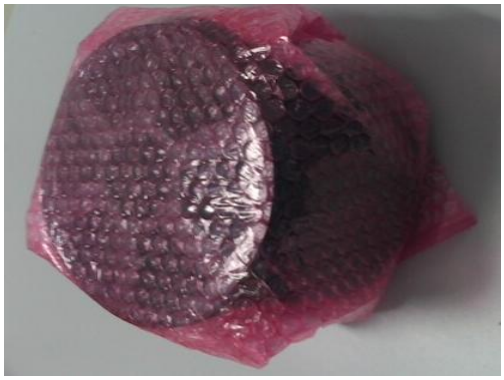
- All information contained in this document is current as of the issuing date and subject to change without any prior notice. Before purchasing or using LRC's Products,please confirm the latest information with a LRC sales represe--ntative.

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

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。

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

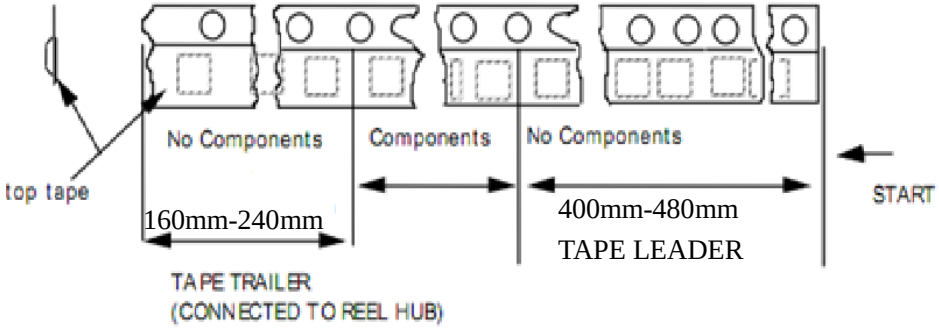
8. 2 Standard Products Taping Specification
标准产品编带规范

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±40mmt

Figure 4

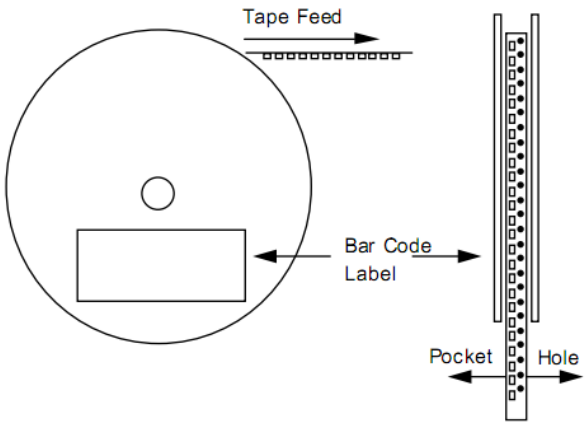
Tape Ends For Finished Goods Reel



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

8.2.3 Tape enwind orientation

编带缠绕方向要求



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