



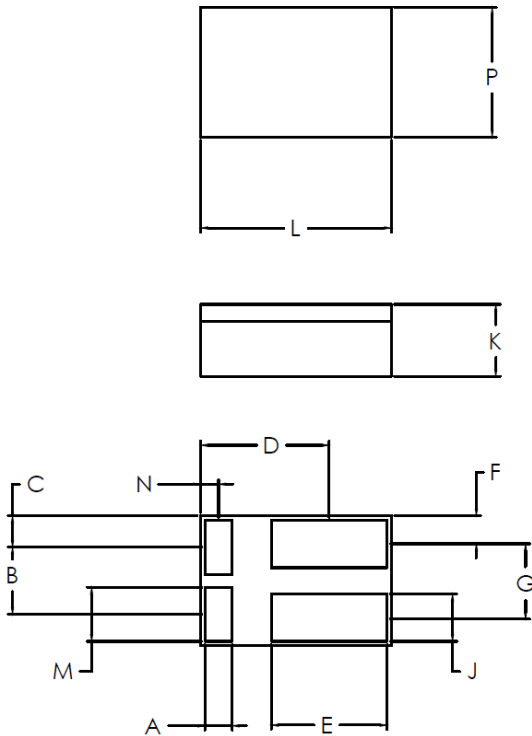
## Description

Freebird Semiconductor FSMD-B package has been designed for use with GaN technology. These parts are supplied with no die inside.

## I/O Pin Assignment (Bottom View)

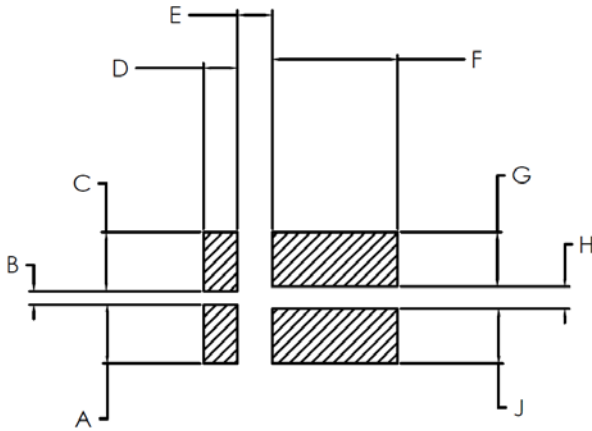
Pin	Symbol	Description	Visual Outline	Physical Device
1	G	Gate		
2	D	Drain		
3	S	Source		
4	SS	Source Sense		

## PACKAGE OUTLINE AND DIMENSIONS



Symbol	Inches		Millimeters		Note
	Min	Max	Min	Max	
A	0.027	0.037	0.686	0.940	
B	0.073	0.083	1.854	2.108	
C	0.035	0.045	0.889	1.143	
D	0.142	0.152	3.607	3.861	
E	0.134	0.144	3.404	3.658	
F	0.025	0.035	0.635	0.889	
G	0.085	0.095	2.159	2.413	
J	0.045	0.055	1.143	1.397	
K	0.076	0.086	1.930	2.184	
L	0.215	0.225	5.461	5.715	
M	0.058	0.068	1.473	1.727	
P	0.145	0.155	3.683	3.937	

**FSMD-B FOOTPRINT FOR PRINTED CIRCUIT BOARD DESIGN**



Symbol	Inches		Millimeters		Note
	Min	Max	Min	Max	
A	0.061	0.071	1.549	1.803	
B	0.010	0.020	0.254	0.508	
C	0.061	0.071	1.549	1.803	
D	0.033	0.043	0.838	1.092	
E	0.025	0.035	0.635	0.889	
F	0.135	0.145	3.429	3.683	
G	0.056	0.066	1.422	1.676	
H	0.020	0.030	0.508	0.762	
J	0.056	0.066	1.422	1.676	

**Freebird Semiconductor Part Number Information**

PART NUMBERS THAT CAN BE ORDERED	DESCRIPTION	DIAGRAM : bottom view with INTERNAL shorts marked in red	SHIPPING
FSMD-B MS DP#	Standard package with an internal short between S & SS contacts		Waffle trays
FSMD-B MS DP# IS	Standard package with an internal short between S & SS and G & D contacts		

**# = 1 is relevant for the following products**  
**FBG04N30Bx**  
**FBG10N30Bx**

**# = 3 is relevant for the following products**  
**FBG20N18Bx**



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Freebird Semiconductor holds numerous U.S patent. Any that apply to the product(s) listed in this document are identified by markings on the product(s) or on internal components of the product(s) in accordance with U.S Patent laws

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Data and specification subject to change without notice.

**Revision**

Datasheet Revision	Product Status
REV P	Proposal/development
REV Q	Characterization and Qualification
REV 1.0	Production Released

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Freebird Semiconductor Corporation has been assessed and registered by Intertek as conforming to the requirements of AS9100C and ISO 9001:2008 quality management system which is applicable to the design and manufacture of high reliability semiconductor devices and circuits. The assessment was performed in accordance with the requirements of AS9104/1:2012-01. Intertek is accredited under the Aerospace Management Program and IAQG ICOP scheme.