

Description

WGP06FB60P1M is a 600V 6A three-phase full bridge intelligent power module with built-in low Loss trench gate field-stop IGBT and FRD, with internal integration of bootstrap diode BSD. The internal integrated temperature output VOT function is used to detect the temperature inside the module. Integrate multiple protection functions, including UVLO under-voltage protection. Compatible with logic levels of 3.3V, 5V.



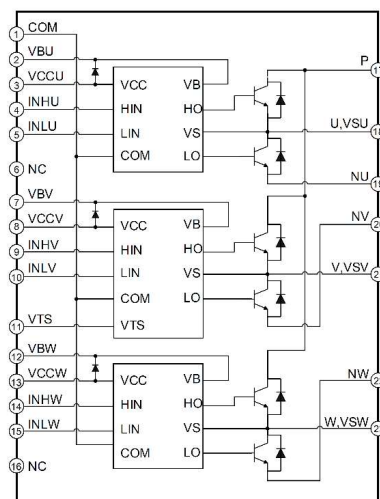
Features

- 600V/ 6A three phase full bridge intelligent power module
- N-side IGBT open emitter
- Compatible with logic levels of 3.3V,5V
- Built-in bootstrap diode with current limiting resistor
- UVLO under-voltage protection

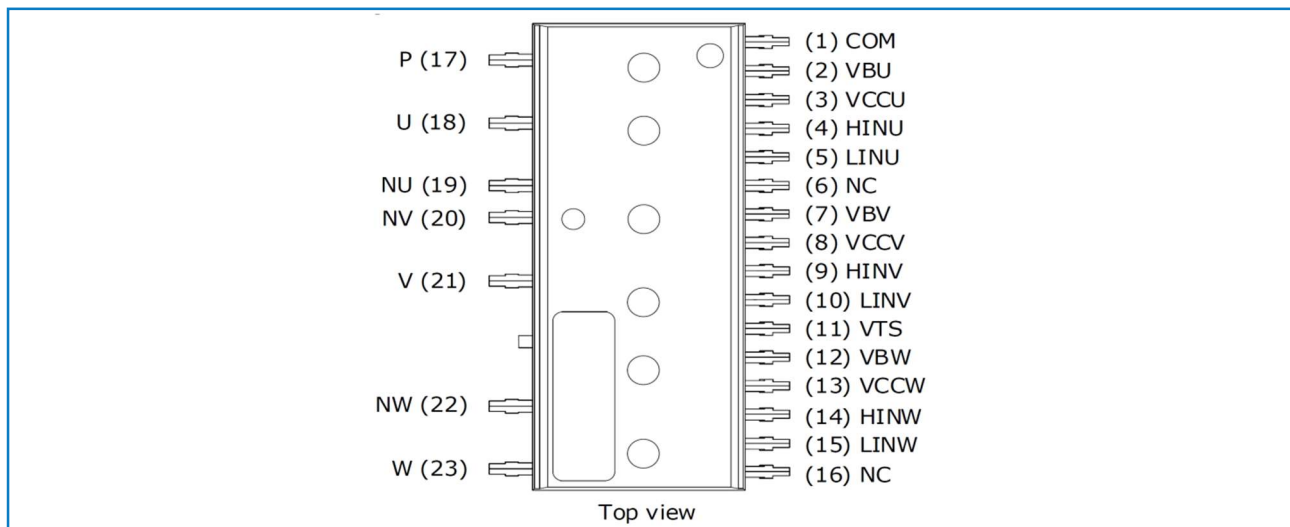
Applications

- Air conditioning compressor
- High power variable frequency fan and water
- Motor driver

Internal Electrical Schematic

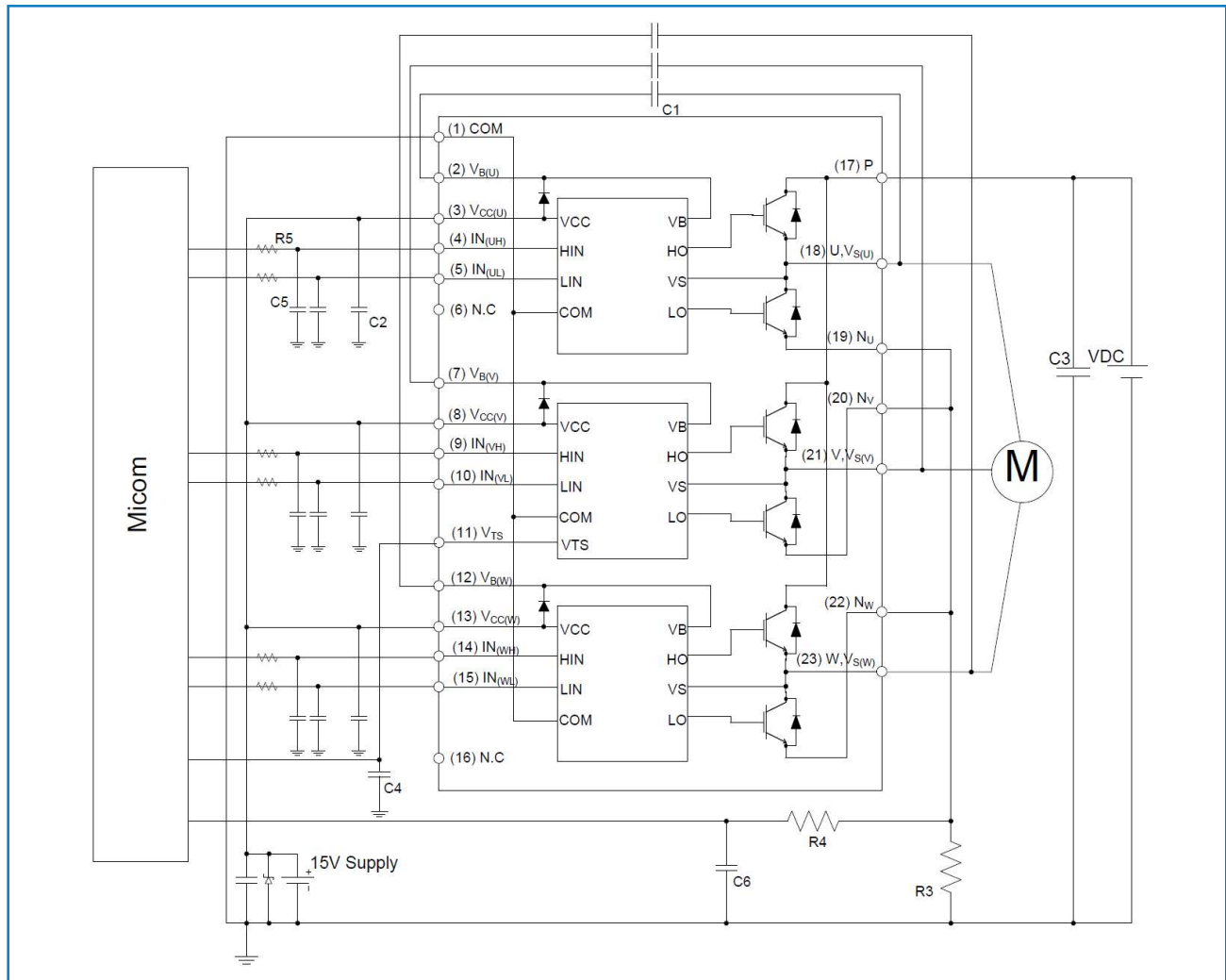


Module Pin-Out Description



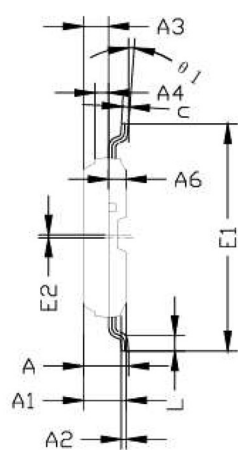
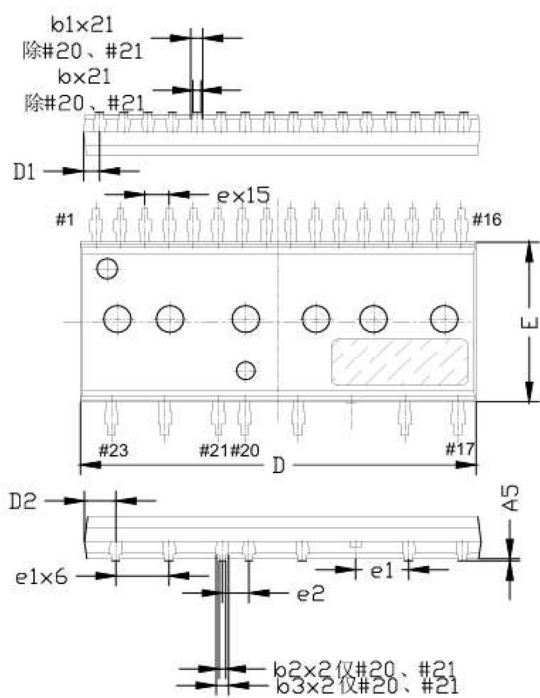
Pin Number	Pin Name	Pin Description
1	COM	Logic Ground
2	VBU	High Side Floating Supply Voltage U
3	VCCU	15V Supply U
4	HINU	Logic Input for High Side Gate Driver - Phase U
5	LINU	Logic Input for Low Side Gate Driver - Phase U
6	NC	Not Connected
7	VBV	High Side Floating Supply Voltage V
8	VCCV	15V Supply V
9	HINV	Logic Input for High Side Gate Driver - Phase V
10	LINV	Logic Input for Low Side Gate Driver - Phase V
11	VTS	Temperature-sensing Voltage Output
12	VBW	High Side Floating Supply Voltage W
13	VCCW	15V Supply W
14	HINW	Logic Input for High Side Gate Driver - Phase W
15	LINW	Logic Input for Low Side Gate Driver - Phase W
16	NC	Not Connected
17	P	DC Bus Voltage Positive
18	U	Output - Phase U, High Side Floating Supply Offset U
19	NU	Phase U Low Side Source
20	NV	Phase V Low Side Source
21	V	Output - Phase V, High Side Floating Supply Offset V
22	NW	Phase W Low Side Source
23	W	Output - Phase W, High Side Floating Supply Offset W

● Example of Application Circuit



Mechanical Dimensions for SOP-23

UNIT:mm



SYMBOL	MILLIMETER		
	MIN	NDM	MAX
A	--	--	3.50
A1	2.90	3.10	3.30
A2	0.50(BSC)		
A3	1.85(BSC)		
A4	1.00(BSC)		
A5	0.10	0.15	0.20
A6	1.30(BSC)		
b	0.50	0.60	0.70
b1	--	--	1.00
b2	0.40	0.50	0.60
b3	--	--	1.00
c	0.45	0.50	0.55
D	28.80	29.00	29.20
D1	1.165(BSC)		
D2	2.275(BSC)		
E	11.80	12.00	12.20
E1	16.80	17.00	17.20
E2	0.25(BSC)		
e	1.778(BSC)		
e1	3.90(BSC)		
e2	1.65	1.95	2.25
L	1.30	1.50	1.70
$\phi 1$	2*	--	8*

- **Ordering Information**

Part	Package	Marking	QTY(PCS)	Packing method
WGP06FB60P1M	SOP-23	WGP06FB60P1M	TBD	Tube

Contact Information

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Product Specification Statement

1.The product specification aims to provide users with a reference regarding various product parameters, performance, and usage. It presents certain aspects of the product's performance in graphical form and is intended solely for users to select product and make product comparisons, enabling users to better understand and evaluate the characteristics and advantages of the product. It does not constitute any commitment, warranty, or guarantee.

2.The product parameters described in the product specification are numerical values, characteristics, and functions obtained through actual testing or theoretical calculations of the product in an independent or ideal state. Due to the complexity of product applications and variations in test conditions and equipment, there may be slight fluctuations in parameter test values. WAYON shall not guarantee that the actual performance of the product when installed in the customer's system or equipment will be entirely consistent with the product specification, especially concerning dynamic parameters. It is recommended that users consult with professionals for product selection and system design. Users should also thoroughly validate and assess whether the actual parameters and performance when installed in their respective systems or equipment meet their requirements or expectations. Additionally, users should exercise caution in verifying product compatibility issues, and WAYON assumes no responsibility for the application of the product.

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