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SMA6861MZ

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Description

SMA6861MZ incorporates 250V/2A IGBT, MOSFET (built-in FRD) for the 3-phase bridge, pre-drive ICs with protection functions such as UVLO (undervoltage lock out), OCP (over current protection), TSD (thermal shutdown), etc., and bootstrap diodes with limiting resistors into 1 package. Full mold package.

Application

For driving fan motors, air purifier fan motors, and dryer fan motors

Features

Built-in boot diode with 210Ω limiting resistor, built-in overcurrent protection circuit (OCP), overcurrent protection with off-time period adjustable by an external capacitor, overcurrent limiting operation, built-in thermal shutdown circuit (TSD), externally controllable shutdown operation, SIP package.

Remarks

Representative Circuit

Package

Package Name:ZIP24(SMA-24)



Specifications

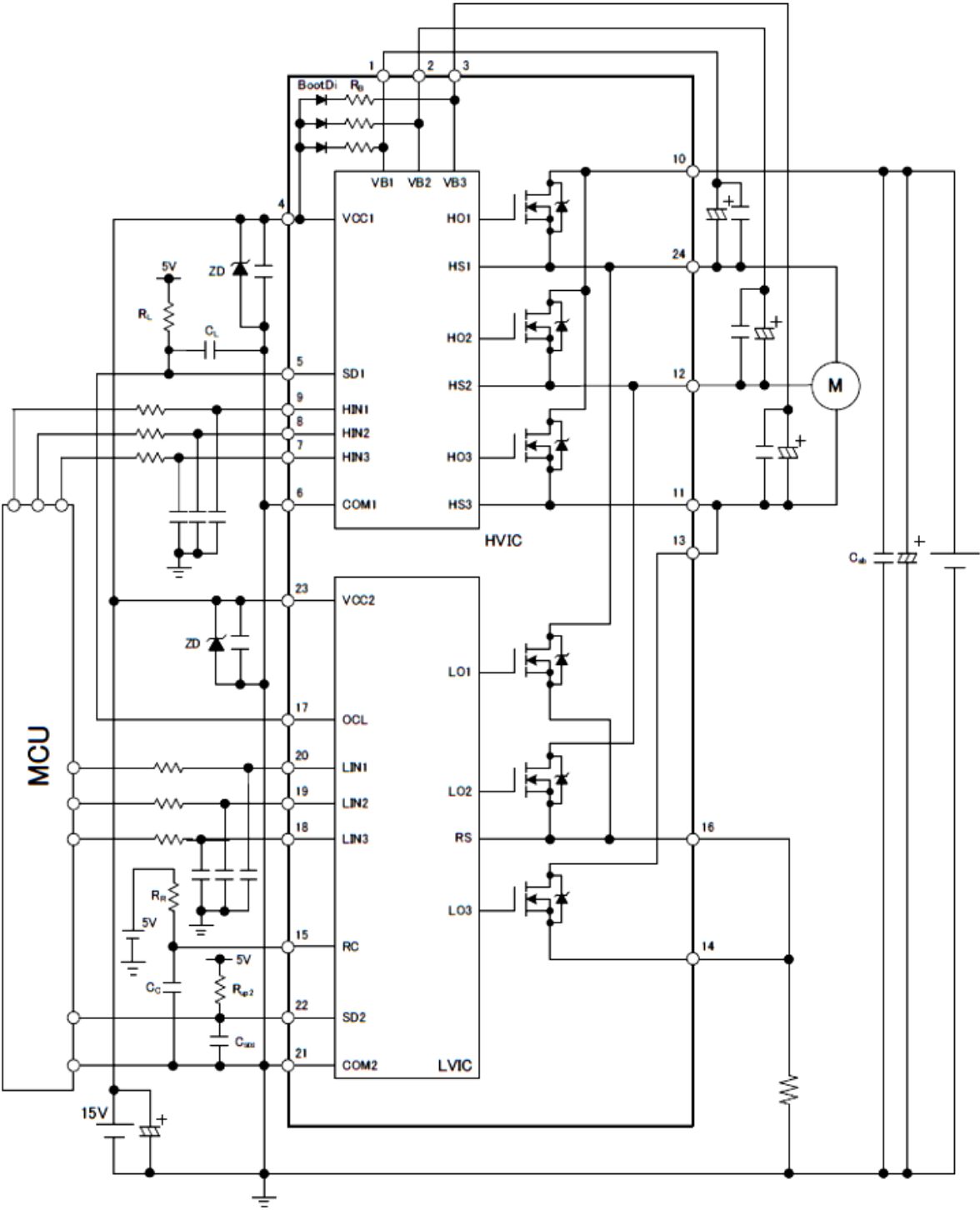
Output Breakdown Voltage	250V
Output Current	2A
R _{DS(ON)} (Ω)max/V _{CE(sat)} (V)typ	1.5Ω
Output Element	MOSFET
Input Threshold (3.3V/5V)	5V
Boot Di Series Resistance	210Ω

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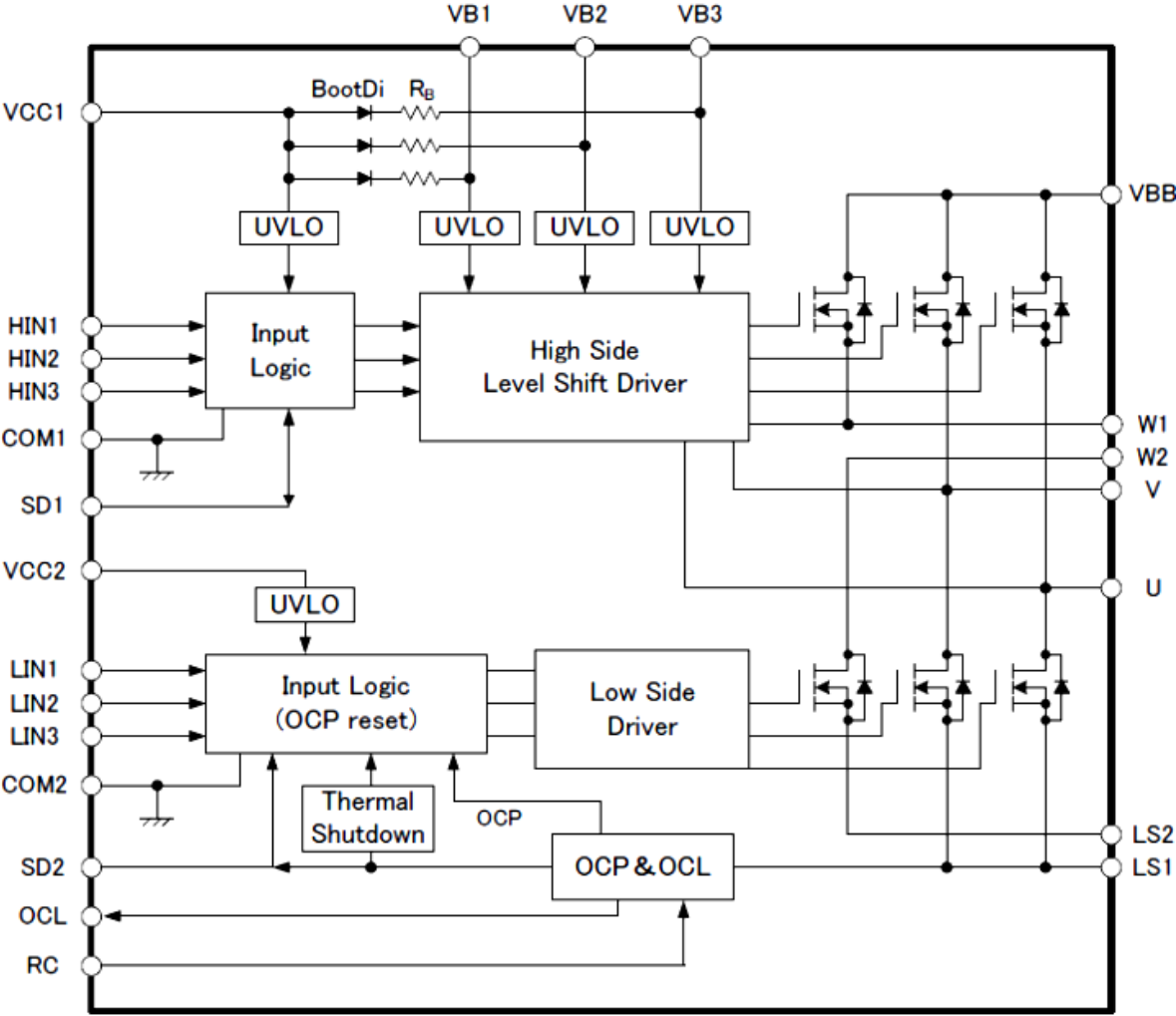
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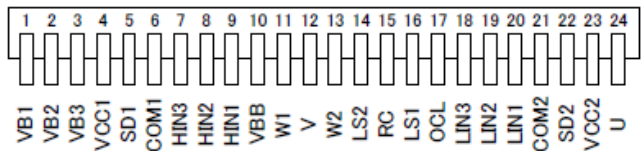
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Internal Block Diagram



Pin-out Diagrams



Pin no.	Pin name	Function
1	VB1	High side boot-strap terminal(U-phase)
2	VB2	High side boot-strap terminal(V-phase)
3	VB3	High side boot-strap terminal(W-phase)
4	VCC1	High side logic supply voltage
5	SD1	High side shut down input / UVLO signal output
6	COM1	High side logic GND
7	HIN3	High side input terminal(W-phase)
8	HIN2	High side input terminal(V-phase)
9	HIN1	High side input terminal(U-phase)
10	VBB	Main Supply voltage
11	W1	Output of W-phase(connected to W2 externally)
12	V	Output of V-phase
13	W2	Output of W-phase(connected to W1 externally)
14	LS2	Low side source terminal(connected to LS1 externally)
15	RC	Over current protection hold time adjustment terminal
16	LS1	Low side source terminal(connected to LS1 externally)
17	OCL	Output for Over current limiter
18	LIN3	Low side input terminal(W-phase)
19	LIN2	Low side input terminal(V-phase)
20	LIN1	Low side input terminal(U-phase)
21	COM2	Low side GND
22	SD2	Over temp. & over current signal output / L-side Shut down input
23	VCC2	Low side logic supply voltage
24	U	Output of U-phase

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