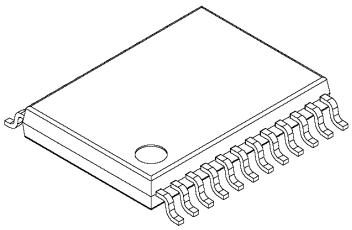
TB9100FNG

3ch H-Bridge driver for DC Brushed Motor

TB9100FNG is a 3chH-bridge driver which is designed specifically for Automotive. 6Hi-side/6Lo-side DMOS transistor are built-in for directly driving small DC Brushed motor.

SPI I/F is built-in for motor operation by external MCU.
Also, miscelleneous abnormal detection such as Over Current/Over Voltage /Over Temperature are built-in.

TB9100FNG is for wide application such as for Automotive Air-condition system (Dumper control), Door Mirror control.



SSOP24-P-300-0.65A

weight : 0.14 g (typ)

Features

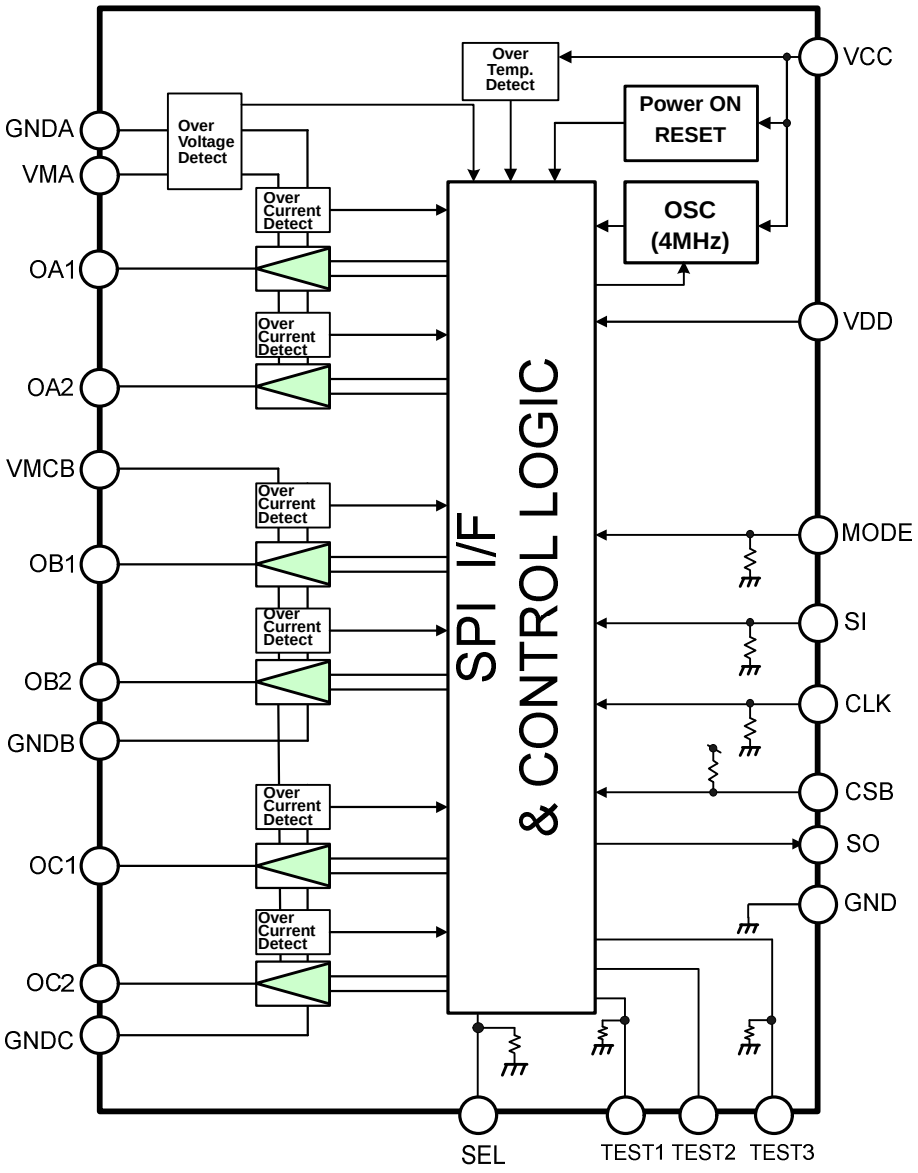
・Motor Driver	: Build-in 3ch H-Bridge （Rdson＝0.4Ω (typ. at 25deg per SW)
・External MCU I/F	: SPI Interface(16Bit Shift Register、CLK,CSB)
・Abnormal detection	: Over Current / Over Temperature / Over Voltage /5v (VCC) Low Voltage Detection (Power On Reset) with monitoring by SPI I/F (output)
・Operating Voltage range (VM)	: 7～18V （Max. 40V）
・Operating Temperature range	: -40℃～125℃
・Package	: SSOP24-P-300-0.65A

・The product(s) is/are compatible with RoHS regulations (EU directive 2002 / 95 / EC) as indicated, if any, on the packaging label ("[[G]]/RoHS COMPATIBLE", "[[G]]/RoHS [[Chemical symbol(s) of controlled substance(s)]]", "RoHS COMPATIBLE" or "RoHS COMPATIBLE, [[Chemical symbol(s) of controlled substance(s)]]>MCV").

About solder ability, it is checking on condition that following.

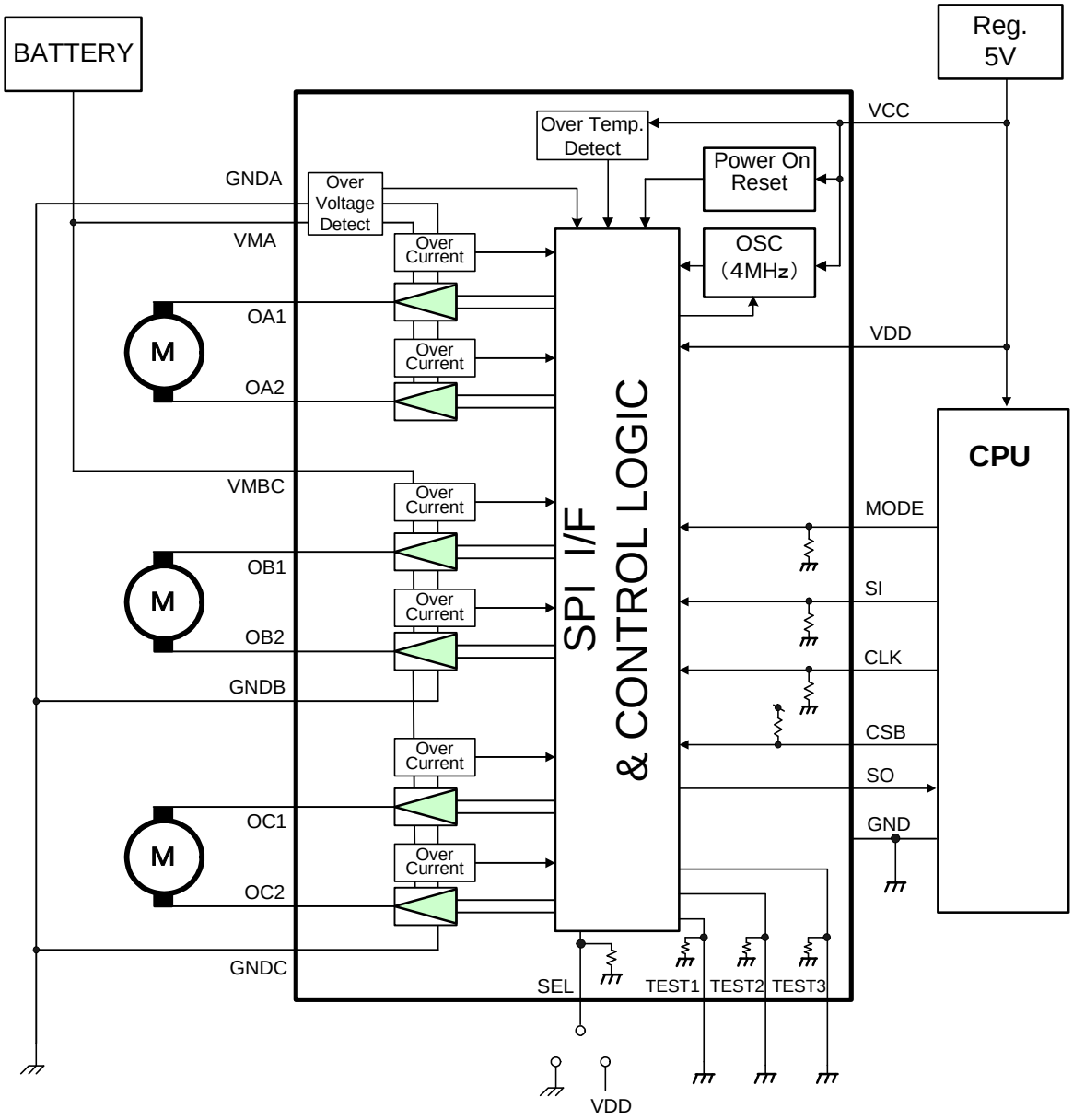
・Solder ability
(1)Use of Sn-37Pb solder Bath
・solder bath temperature=230℃
・dipping time=5seconds
・the number of times =once
・use of R-type flux
(2)Use of Sn-3.0Ag-0.5Cu solder Bath
・solder bath temperature=245℃
・dipping time=5seconds
・the number of times =once
・use of R-type flux

Block Diagram



＊1：Some of the functional blocks,circuit,or constants in the block diagram may be omitted or simplified for explanatory purpose.

Application circuit diagram



＊1：Some of the functional blocks,circuit,or constants in the block diagram may be omitted or simplified for explanatory purpose.

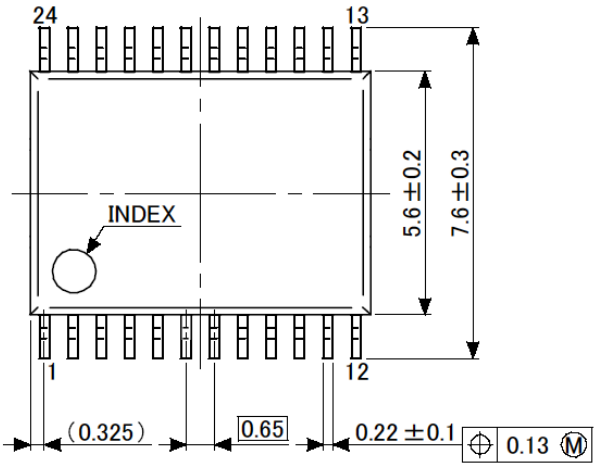
＊2：Install the product correctly. Otherwise, it may result in break down, damage and/or deterioration to the product or equipment.

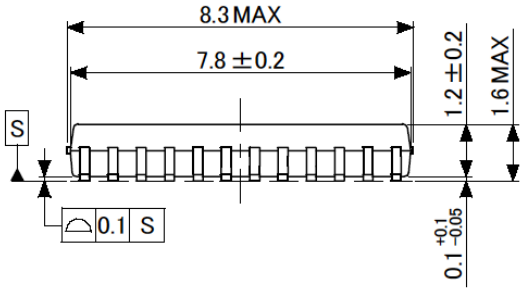
＊3：The application circuits shown in this document are provided for reference purposes only. Especially, a thorough evaluation is required on the phase of mass production design.
Toshiba dose not grant the use of any industrial property rights with these examples of application circuits.

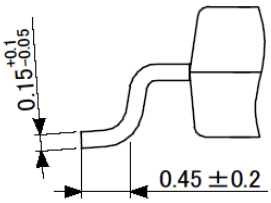
＊4：VCC and VDD should be connected each other on the board to do not make voltage gap between VCC and VDD. Otherwise, it may be cause of improper TB9100FNG operation

Package **Unit : mm**

SSOP24-P-300-0.65A







Weight: 0.14g (typ.)

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