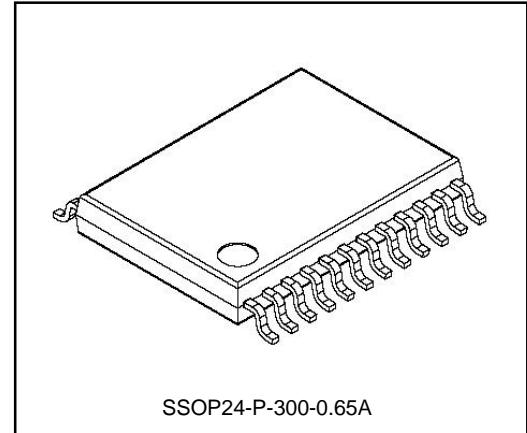


TB9110FNG

TB9110FNG is an automotive GATE-driver IC for brushed DC motor with PWM control.

Feature

- DC brushed motor GATE-driver for Nch MOSFET.
- Motor Speed control by PWM Input.
- Built-in 5V Regulator.
- Built-in Charge pump circuit with external capacitor.
- Built-in 8bit AD converter.
- Built-in Oscillator (5.12MHz).
- Miscellaneous Abnormal Detection.
(Over Current / Over Temp./ Over Voltage / Low Voltage / Motor Lock Detection)
- Operating supply voltage range: 7 to 18V
- Operating temperature range: -40 to 105°C
- Package: SSOP24pin (pin pitch:0.65 mm)
- 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").



Weight: 0.14 g (typ.)

About solderability, following conditions were confirmed

- Solderability

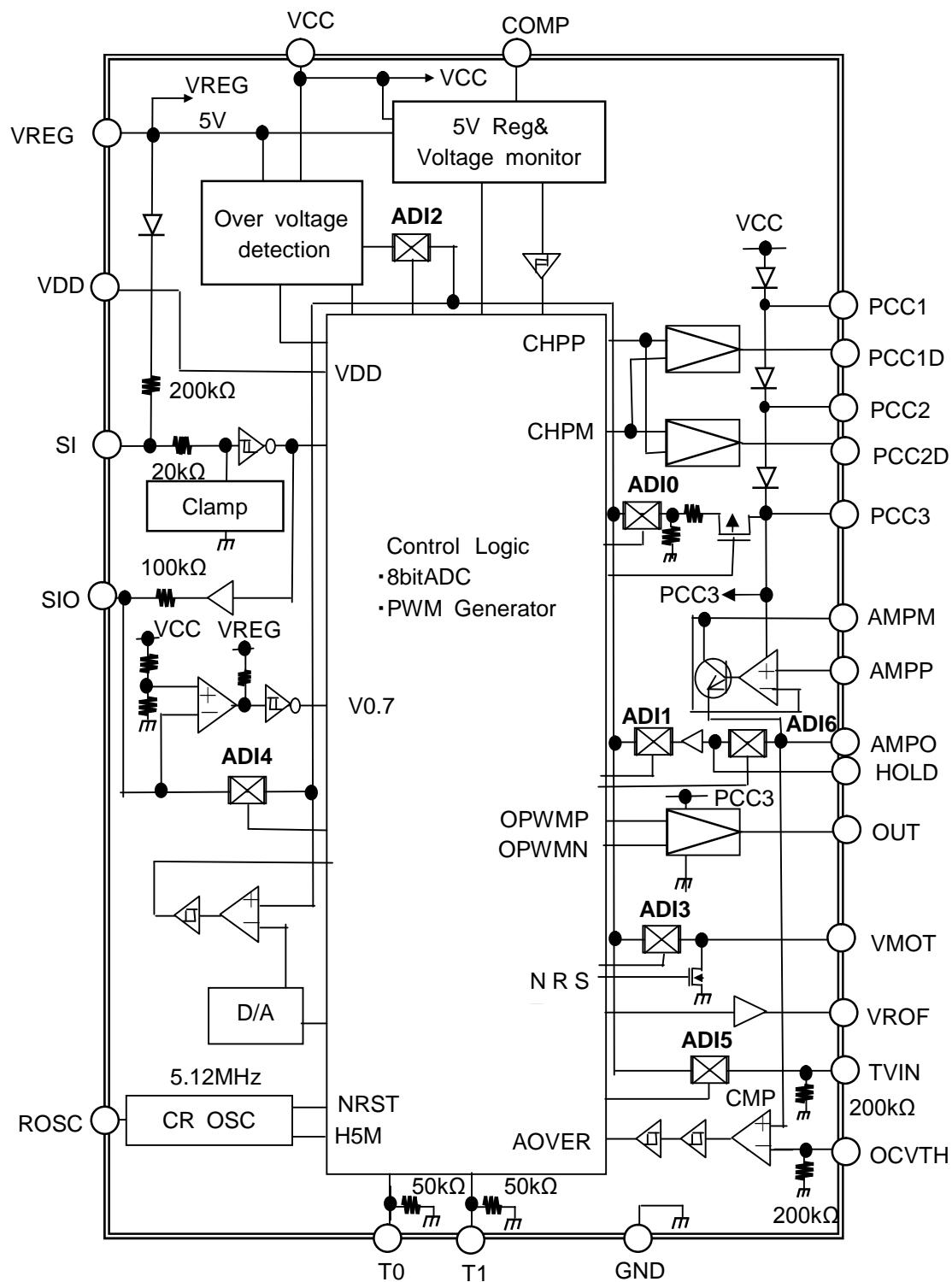
Use of Sn-37Pb solder Bath

- solder bath temperature = 230 °C
- dipping time = 5 seconds
- the number of times = once
- use of R-type flux

Use of Sn-3.0Ag-0.5Cu solder Bath

- solder bath temperature = 245 °C
- dipping time = 5 seconds
- the number of times = once
- use of R-type flux

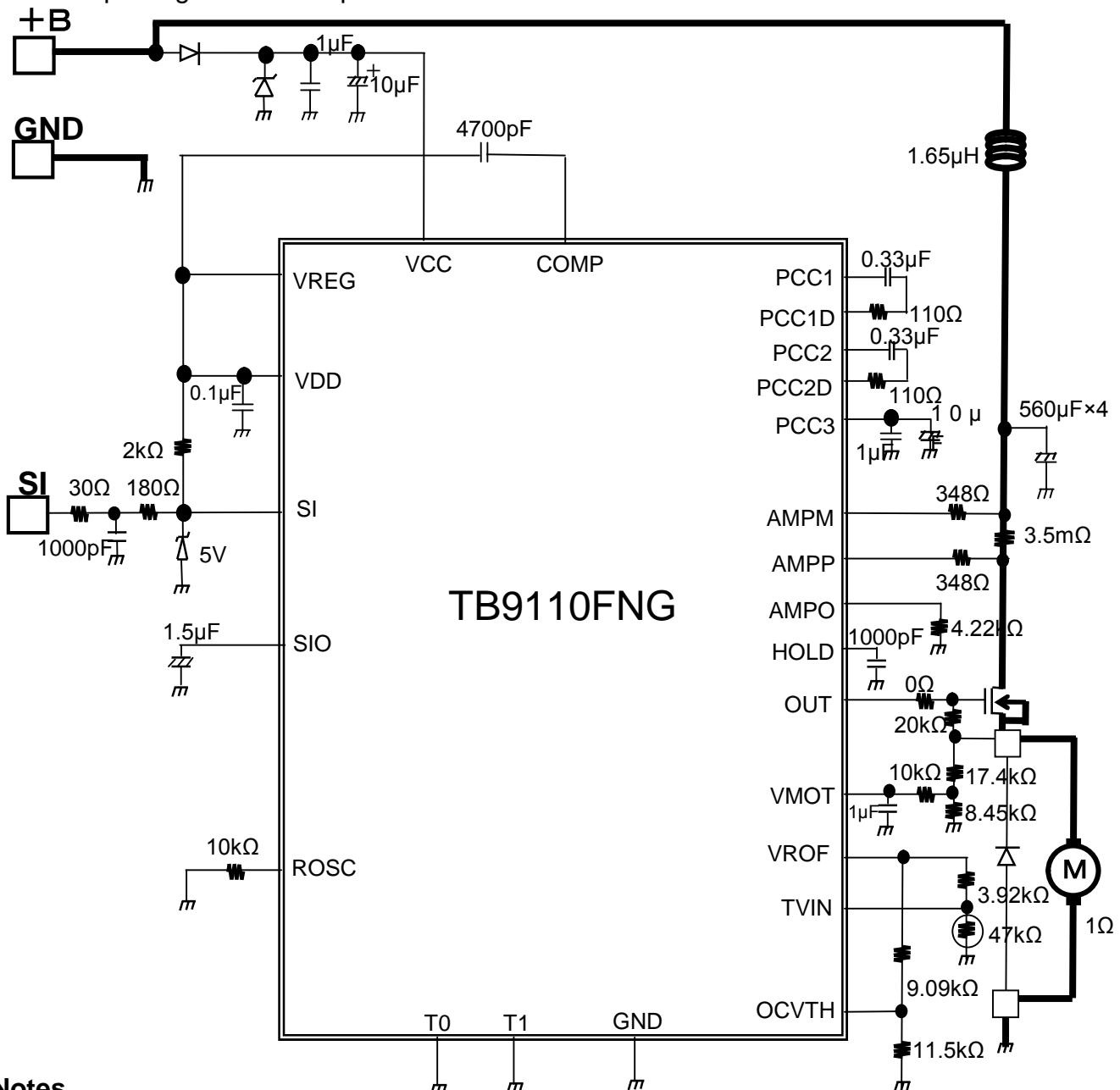
Block Diagram



Note: Some of the functional blocks, circuits, or constants in the block diagram are omitted or simplified to clarify the descriptions of the relevant features.

Application Examples

(Input signal: PWM input)



Notes

Note1: Some of the functional blocks, circuits, or constants in the block diagram may be omitted or simplified for explanatory purposes.

Note2: The equivalent circuit diagrams may be simplified or some parts of them may be omitted for explanatory purposes.

Note3: Timing charts may be simplified for explanatory purposes..

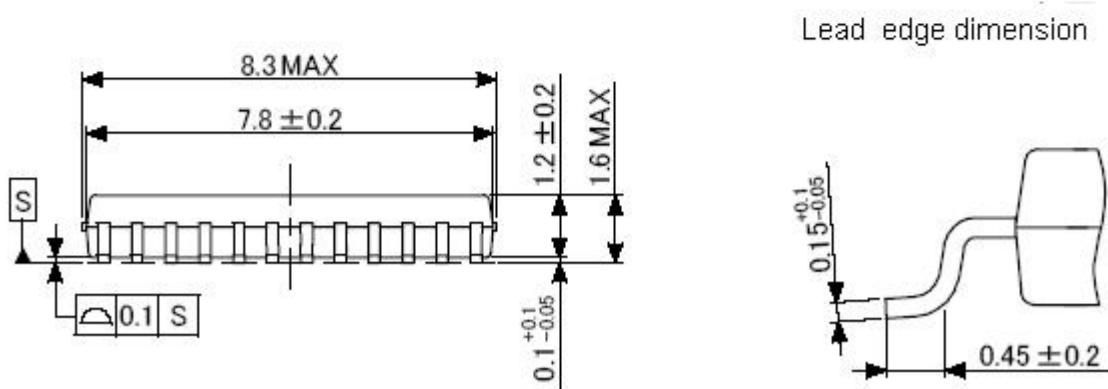
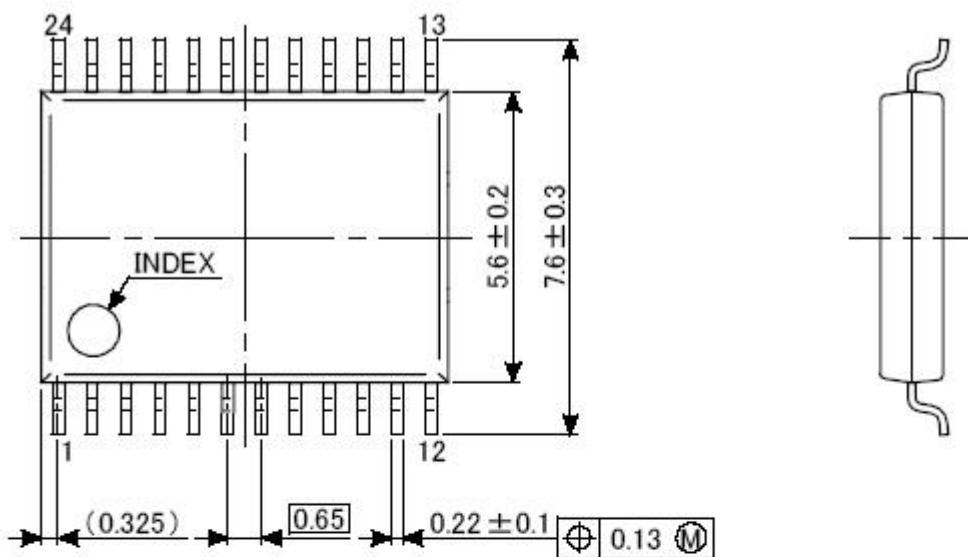
Note4: Ensure that the IC is mounted correctly as specified. Failing to observe the correct mounting procedure or requirements may damage the IC or target equipment.

Note5: Components in the test circuits are only used to obtain and confirm the device characteristics. These components and circuits do not warrant to prevent the application equipment from malfunction or failure.

Note6: The application circuits shown in this document are provided for reference purposes only. Thorough valuation is required, especially at the mass production design stage. Toshiba does not grant any license to any industrial property rights by providing these examples of application circuits.

Package Dimensions

Unit:mm



Weight: 0.14 g (typ.)

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