

CIPOS™

Control Integrated POver System

Dual In-Line Intelligent Power Module

Two Phase Switched Reluctance Drives 600V / 20A

Features

Dual In-Line molded module

- TRENCHSTOP™ IGBTs
- Rugged SOI gate driver technology with stability against transient and negative voltage
- Allowable negative VS potential up to -11V for signal transmission at VBS=15V
- Integrated bootstrap functionality
- Over current shutdown
- Temperature monitor
- Under-voltage lockout at all channels
- All of 4 switches turn off during protection
- Lead-free terminal plating; RoHS compliant
- Very low thermal resistance due to DCB

Target Applications

- Two phase switched reluctance drives

Description

The CIPOS™ module family offers the chance for integrating various power and control components to increase reliability, optimize PCB size and system costs.

It is designed to control two phase switched reluctance motors in variable speed drives for applications like a vacuum cleaner. The package concept is specially adapted to power applications, which need good thermal conduction and electrical isolation, but also EMI-save control and overload protection.

TRENCHSTOP™ IGBTs and diodes are combined with an optimized SOI gate driver for excellent electrical performance.

System Configuration

- Two phase switched reluctance drive with TRENCHSTOP™ IGBTs
- SOI gate driver
- Thermistor
- Pin-to-heatsink clearance distance typ. 1.6mm

Pin Configuration

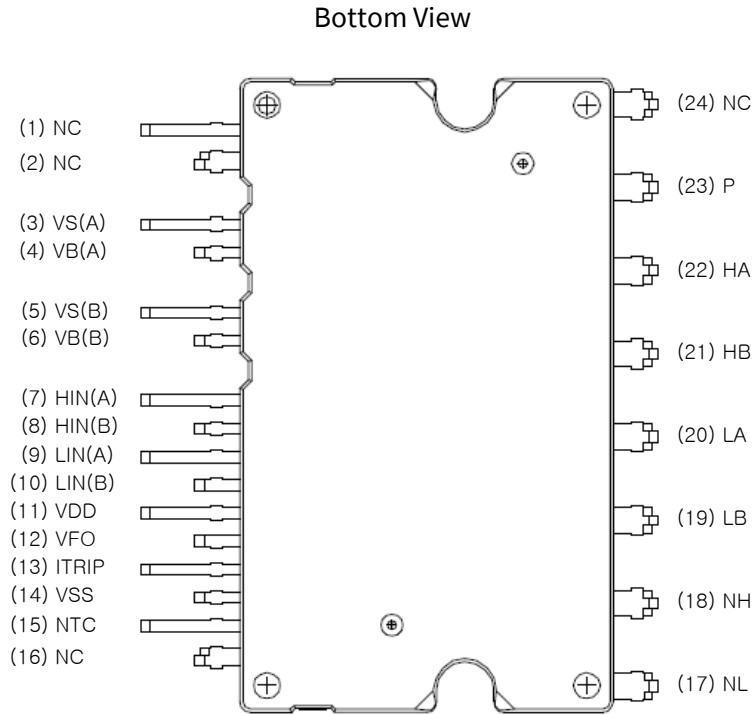


Figure 1 Pin configuration

Internal Electrical Schematic

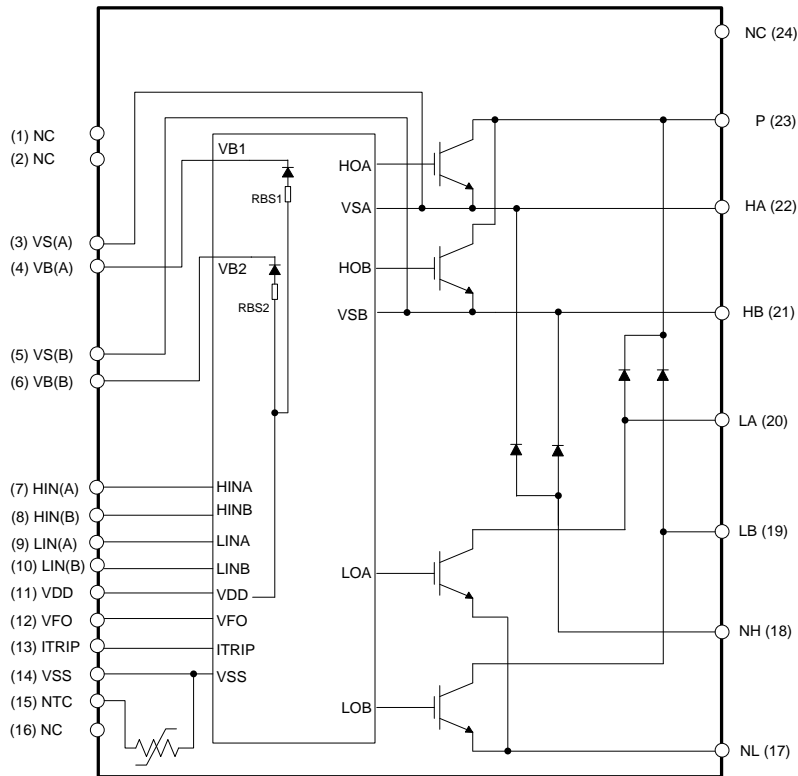


Figure 2 Internal schematic