

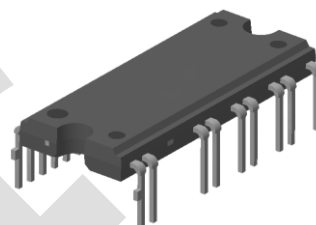
# INTELLIGENT POWER MODULE(IPM), 3 PHASE FULL-BRIDGE 600V/6A

## 1.DESRIPTION

SDM06V60TA2 is a highly integrated and highly reliable three-phase brushless DC motor drive circuit, which is mainly used in lower power frequency conversion drives, such as fans, pumps, Refrigerator, etc. It contains 6 low loss IGBTs and 3 half-bridge HVIC for gate driving.

SDM06V60TA2 integrates various protection functions such as undervoltage, short circuit, and overtemperature, as well as temperature output, providing excellent protection and a wide safe operating range. Since each phase has an independent negative DC terminal, its current can be sensed separately.

SDM06V60TA2 is designed with good insulation and perfect thermal properties. It is compact and suitable for built-in motors or any other applications requiring the compact installation.



DIP-2VB

## 2.FEATURES

- Built-in six 600V/6A low loss IGBTs
- Built-in high-voltage Gate driver circuit (HVIC)
- Built-in under voltage protections, over current protection and temperature output
- Built-in shut-down input
- Built-in inter-lock function
- Built-in bootstrap diode
- Compatible with 3.3V, 5V MCU interface, active high
- Three independent negative DC terminals for inverter current detection
- Insulation class: 1500V<sub>rms</sub>/min

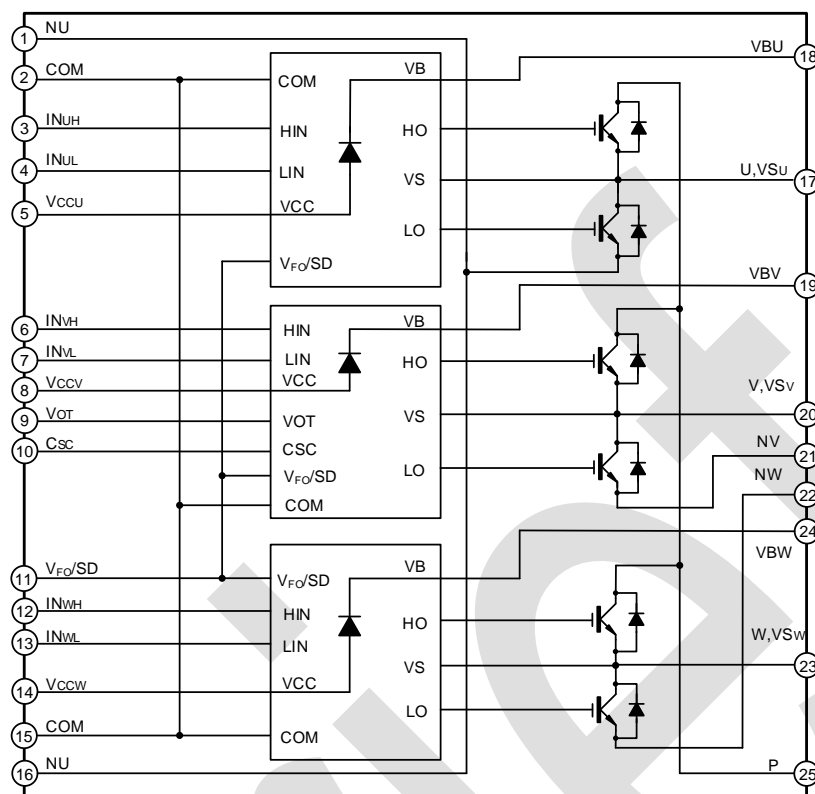
## 3.APPLICATIONS

- Air conditioner fan
- Pump
- Refrigerator

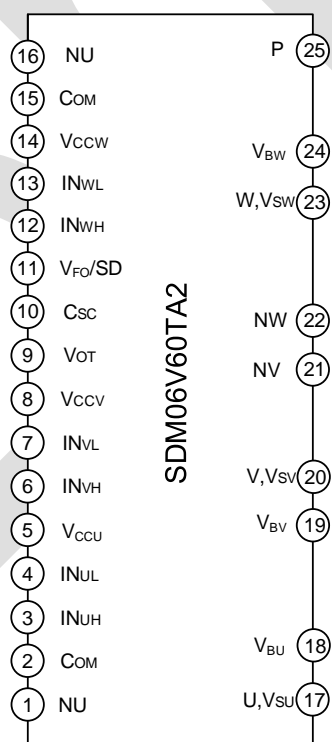
## 4.ORDERING INFORMATION

Part No.	Package	Marking	Hazardous Substance Control	Packing Type
SDM06V60TA2	DIP-2VB	SDM06V60TA2	Halogen free	Tube

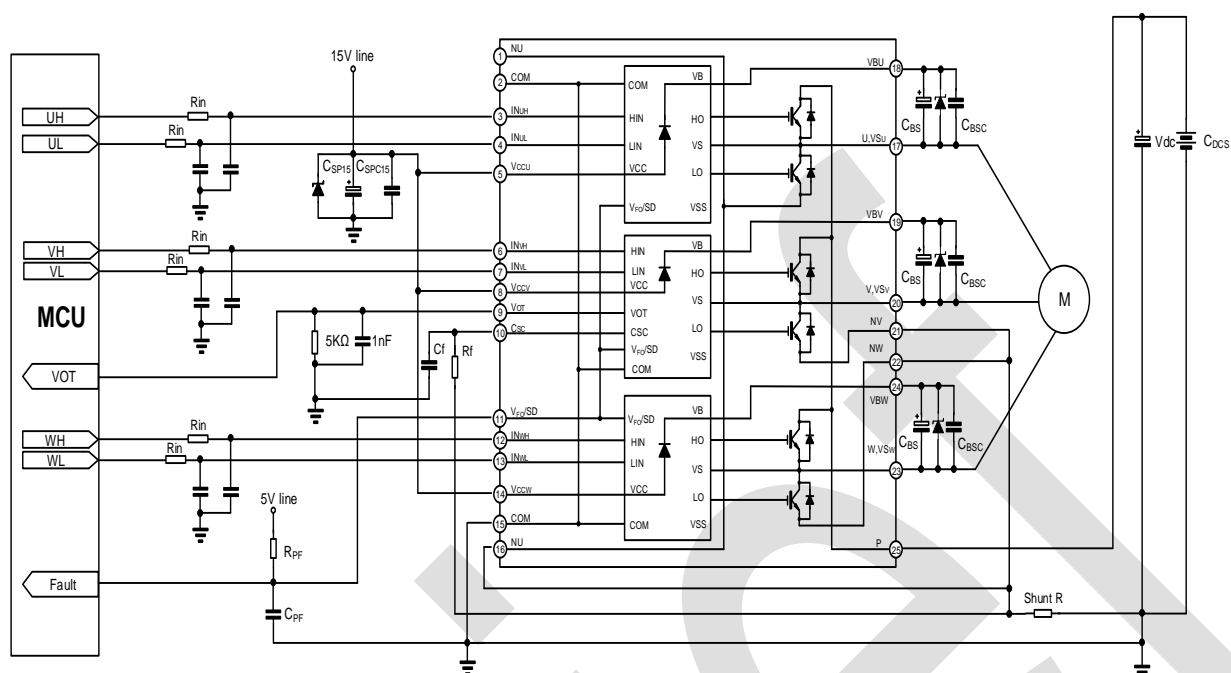
## 5. BLOCK DIAGRAM



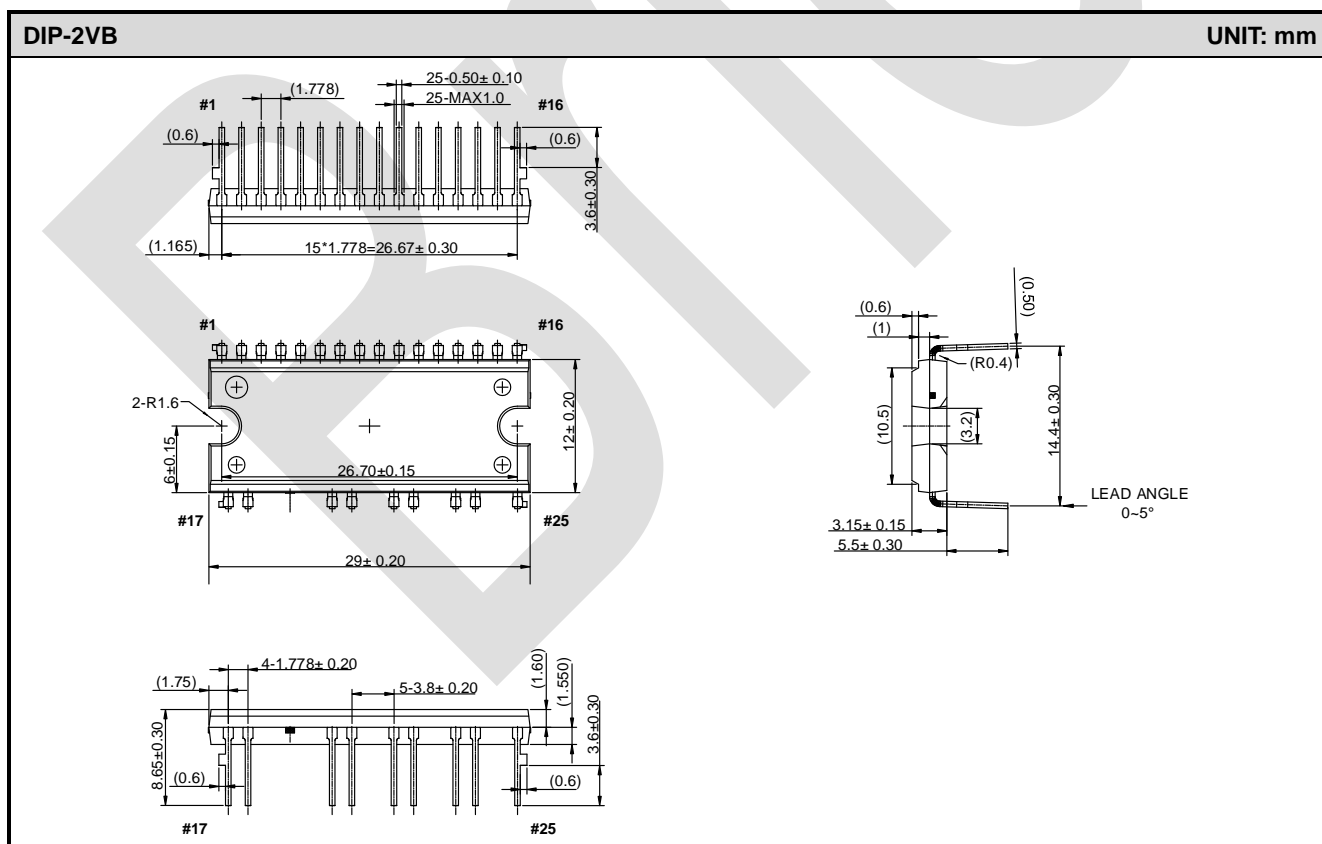
## 6. PIN CONFIGURATION



## 7.TYPICAL APPLICATION CIRCUIT



## 8.PACKAGE OUTLINE



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4. The application of the product described in this instruction, the application manual of the product and related materials is for illustrative purposes only, and Silan makes no warranty that such application can be used directly without further testing, verification or modification. Silan is not responsible for any assistance in product application or customers' product design. Customer shall be responsible for the application of Silan's products and the design, manufacture and use of customers' products using Silan's products (in this document, "use products", "apply Silan's products", "product application" and "customers' products using Silan's products" are synonymous). It is the sole responsibility of the customer to take the following actions: 1) Verify and determine whether Silan's products are suitable for the customers' applications and customers' products; 2) All applicable standards of the customers' industry shall be complied with and fully tested and verified when applying Silan's product or using Silan's product to develop and design customers' products; 3) Although Silan is constantly committed to improve product's quality and reliability, semiconductor products have possibility to malfunction or fail in various application environments. Customers are responsible for complying with safety standards and for providing adequate designs and safeguards for customers' products using Silan's product to minimize risks and avoid situations in which a malfunction or failure could cause bodily injury or damage to property; 4) When using the products, please do not exceed the maximum rating of the products, Stress above one or more limiting values will cause damage to the product and the equipment or affect the reliability to the equipment (customers' product); 5) Ensure customers' product using Silan's product are designed, manufactured and used in full compliance with all applicable standards, safety standards and other requirements of the customers' industry. The parameters stated in this instruction may and do vary in different applications, actual performance may vary over time. Customers must use the products within their effective static storage period, please contact Silan sales or Silan customer service support and sales management department if there is any questions about the effective static storage period, Silan does not assume any responsibility if the product has exceeded the static storage period when it is used.
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