



## Product Overview

### STK5F1U3C2D-E: Intelligent Power Module for 3-Phase Motor Driver

For complete documentation, see the data sheet

#### Product Description

This Intelligent Power Module (IPM) is a highly integrated device containing all High Voltage (HV) control from HV-DC to 3-phase outputs in a single DIP module (Dual-In line Package). Output stage uses IGBT/FRD technology and implements Under Voltage Protection (UVP) and Over Current Protection (OCP) with a Fault Detection output flag. Internal Boost diodes are provided for high side gate boost drive.

#### Features

- Over-current Protection Circuit
- Under-voltage lockout for all channels
- Upper/lower ON prevention circuit
- Thermistor for case temperature monitor
- Direct input of CMOS level control signals without an insulating is possible

#### Benefits

- Fast speed protection is possible (Self protection)
- All IGBT Gate shutdown at abnormal for safety
- System malfunction can reduce by noise
- High precision monitor is possible
- No need photo-coupler design

#### Applications

- Industrial Applications
- Consumer Applications

#### End Products

- Motor Control Systems
- Industrial/General control System
- HVAC
- Clothes Washer/Dryer
- Dish Washer

#### Part Electrical Specifications

Product	Compliance	Status	Type	V <sub>M</sub> Min (V)	V <sub>M</sub> Max (V)	V <sub>CC</sub> Min (V)	V <sub>CC</sub> Max (V)	I <sub>O</sub> Max (A)	I <sub>O</sub> Peak Max (A)	Step Resolution	Control Type	Feedback Method	Current Sense	Regulator Output	Fault Detection	Flyback Protection	R <sub>DS(on)</sub> Typ (Ω)	Package Type
STK5F1U3C2D-E	Pb-free	Active	Inverter		600		20	30	49		PWM	None	Fully Integrated	No	Over-Current Thermal UV LO	External		Hybrid Integrated Module

For more information please contact your local sales support at [www.onsemi.com](http://www.onsemi.com)

Created on: 7/11/2015