



Microstepping Driver

SMD**FEATURES**

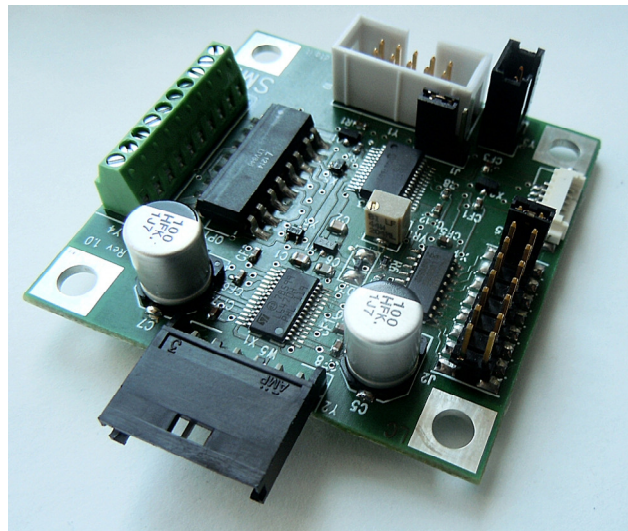
- Operating voltage: 8 - 45 V
- 7.0 A out peak current (3.0 A r.m.s.)
- Low RDS(on)Power MOSFETs
- Programmable speed profile and positioning
- Programmable power MOS slew rate
- Up to 1/128 microstepping
- Sensorless stall detection
- ESPI interface
- Low quiescent and standby currents
- Programmable non-dissipative overcurrent protection
- Two-levels of overtemperature protection
- Four opto-isolated output
- Four opto-isolated input
- Four bidirectional LVTTTL ports

GENERAL DESCRIPTION

SMD is an advanced fully integrated solution suitable for driving two-phase bipolar stepper motors with microstepping. It integrates a dual low RDS(on)DMOS full-bridge with all of the power switches equipped with an accurate onchip current sensing circuitry suitable for non dissipative current control and overcurrent protection.

Thanks to a unique control system, a true 1/128 steps resolution is achieved. The digital control core can generate user defined motion profiles with acceleration, deceleration, speed or target position, easily programmed through a dedicated registers set.

All commands and data registers, including those used to set analogue values (i.e. current control value, current protection trip point, deadtime, PWM frequency, etc.) are sent through a standard 5-Mbit/s ESPI bus. A very rich set of protections (thermal, low bus voltage, overcurrent, motor stall) allows the design of a fully protected application, as required by the most demanding motor control applications.



SMD

DIMENSIONS AND SIGNALS

