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DESCRIPTION

The SSI 32H6900 servo and spindle driver, a BiCMOS monolithic integrated circuit housed in a 64-Lead TQFP package, operates from +5 V and +12 V supplies. It is designed to drive a voice coil actuator and a 3-phase hall-sensorless motor. Integrated in the device are power MOSFETs. The device is intended for use in 12 V disk drive applications.

FEATURES

VCM DRIVER

- 0.5 A 12 V class AB VCM driver
- 1.75 Ω max on resistance (R_{ON-UP} + $R_{ON-DOWN}$)

SPINDLE DRIVER

- 1.2 A, 12 V 3-phase motor driver
- Internal flyback protection
- PWM during run and start
- PLL for high jitter immunity
- 2 Ω max on resistance (R_{ON-UP} + $R_{ON-DOWN}$)
- Precision internal current sense

FAULT DETECTION/RETRACT

- Power-on-reset
- 5 V and 12 V fault detection
- Internal active BEMF rectifiers
- Retract amplifier sources and sinks current
- Digitally programmable dual level retract voltage
- Digitally programmable retract and brake delay timing

GENERAL

- 64-Lead thermally enhanced TQFP
- Bi-directional serial port
- OTSD, over temperature protection
- Negative power supply for MR preamps
- Analog output proportional to junction temperature

SSI 32H6900

Servo/Spindle Driver

BLOCK DIAGRAM

