

## High-Voltage, Quad, 9-Bit Voltage/Current DAC with Serial Interface

### General Description

The HVDAC 200 combines four serially configurable, high-voltage, 9-bit voltage/current digital to analog converters (DACs) in a single package. The device supply operating voltage range (VDDH) is from 20 to 200 volts. Users can select from two maximum current ranges – 500 $\mu$ A/5mA for ch0 and ch1 and 500 $\mu$ A/2.5mA for ch2 and ch3.

The current output is programmable from 0 through the maximum current range setting (9-bit resolution). An additional 5-bit offset adjust is also provided. The output voltage range is set via the load resistance at output. An on-chip load resistance of 600K is also available.

Other features include a hardware reset that clears the internal registers, software programmable shutdown and retransmission of serial bus signals for multiple device usage. The logic inputs and outputs are TTL/CMOS compatible.

### Applications

- Level Translation
- MEMs (micro-electro-mechanical) Drivers
- Intelligent Power Controllers
- Optical Controllers
- Lighting Controls
- Piezoelectric Transducer Drivers
- Automotive, Medical, Commercial, Industrial

### Features

- Four 9-bit current DACs
- 5-bit offset adjustment
- 200 volt supply operation
- 3 wire serial control (SPI compatible)
- Programmable gain control
- On chip load resistor for voltage range setting
- On-board temperature sensor/shutdown

### Functional Diagram

