

# DW9800K

## H-Bridge Driver IC

### Description

The DW9800K is designed for linear control of bi-direction voice coil motors (Bi-VCM). The DW9800K is a single 10-bit DAC with  $\pm 130\text{mA}$  output current sinking capability. The DW9800K has Smart Actuator Control (SAC™) mode.

SAC™ mode can be applied to minimize the mechanical vibration. The SAC™ mode has improved the actuator's settling time and wide tolerance coverage compared with conventional Linear Slope Control (LSC) mode. The SAC™ is registered trademark of DONGWOON ANATECH. The SAC™ technologies belong to DONGWOON ANATECH's own knowhow and patents.

The DW9800K also features an internal reference and operates from a single 2.3 V to 4.8V supply. The DAC is controlled via an I<sup>2</sup>C serial interface that operates up to 1000kHz. The DW9800K has a Power On Reset (POR) circuit and power down (PD) mode. POR circuit gets to operate when VDD (supply voltage) turns on. The output current keeps 0mA until valid register value takes place. The DW9800K offers to the user the choice of PD mode that ensures the minimal power (Max. 1uA) is consumed in shutdown mode. The DW9800K is protected by

thermal shutdown (TSD) circuit for thermal attack.

The DW9800K is designed for auto focus, optical zoom for mobile camera, digital still camera, camcorders, web camera and action camera applications.

### Features

- 10-bit resolution current sinking of  $\pm 130\text{mA}$
- Adjustable maximum current of  $\pm 130\text{mA}$  and  $\pm 100\text{mA}$
- Smart Actuator Control (SAC™) mode
- Supply voltage range (VDD): 2.3V to 4.8V
- Fast mode plus I<sup>2</sup>C interface compatible (1.8V interface available)
- Power On Reset (POR)
- Power Down (PD) mode
- Thermal Shutdown (TSD)
- Package: 0.72mm X 1.12mm X 0.3mm (6-pin WLCSP)

### Applications

- Mobile cameras
- Digital still cameras
- Camcorders
- Web cameras
- Nano actuator

## Typical Application Diagram

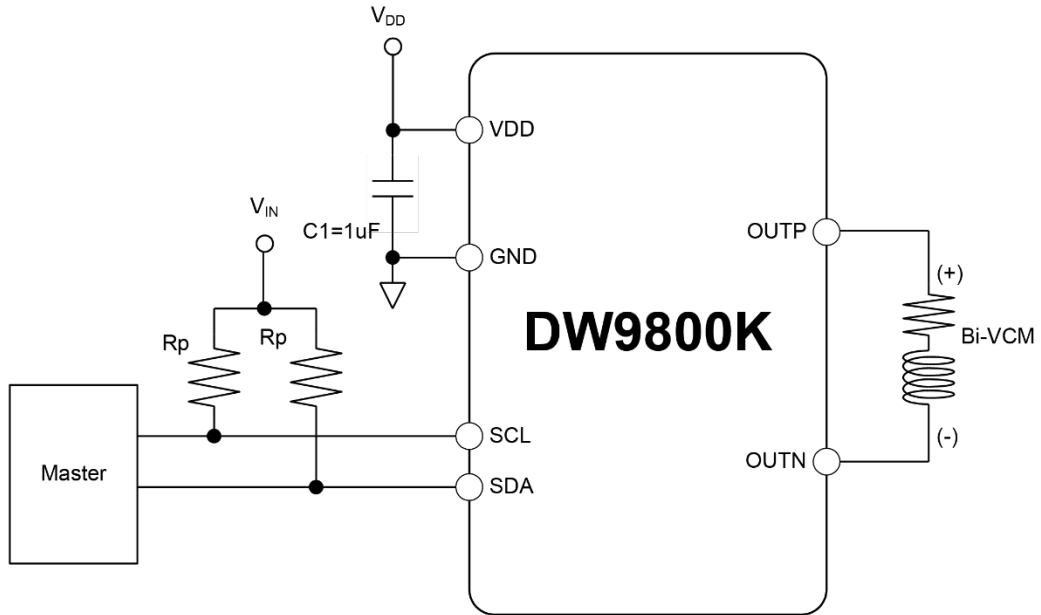


Figure 1. Typical Application Diagram

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