Tel: 886-2-66296288
Fax: 886-2-29174598
URL: http://www.princeton.com.tw

DESCRIPTION

The PT5662 is a single 10-bit DAC with 102.3mA output current sink capability. It features an internal reference and operates from a single 2.3V to 5.5V supply. The DAC is controlled via a 2-wire (I^2C compatible) serial interface that operates at clock rates up to 400KHz.

The PT5662's unique and proprietary Slope Control Modes allow the user to customize the output transient response thereby overcoming mechanical ringing associated with reduced form factor voice coil motors (VCMs).

The PT5662 incorporates a power-on reset circuit, which ensures that DAC output powers up to 0V and remains there until a valid write takes place. It has a power-down feature that reduces the current consumption of the device to 1μA maximum.

The PT5662 is designed for autofocus, image stabilization, and optical zoom applications in camera phones, digital still cameras, and camcorders.

The PT5662 also has many industrial applications, such as controlling temperature, light, and movement, over the range -40℃ to +85℃ without derating.

The I^2C address for the PT5662 is 0x18h.

FEATURES

- 102.3mA current sink
- 2-wire (I^2C -compatible) 1.8V serial interface
- 10-bit resolution DAC
- Integrated current sense resistor
- Selectable output slope control
- 2.3V to 5.5V power supply
- Guaranteed monotonic over all codes
- Power-down to 0.5μA typical
- Internal reference
- Built-in UVLO shutdown circuit
- Built-in thermal shutdown circuit
- Power-down function
- Power-on reset
- Available in 2 x 3 array, 1.114mm x 1.614mm WLCSP packages
- Available in WCSP-6 and DFN-8

STRUCTURE

- Silicon CMOS IC

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APPLICATIONS

CONSUMER APPLICATIONS

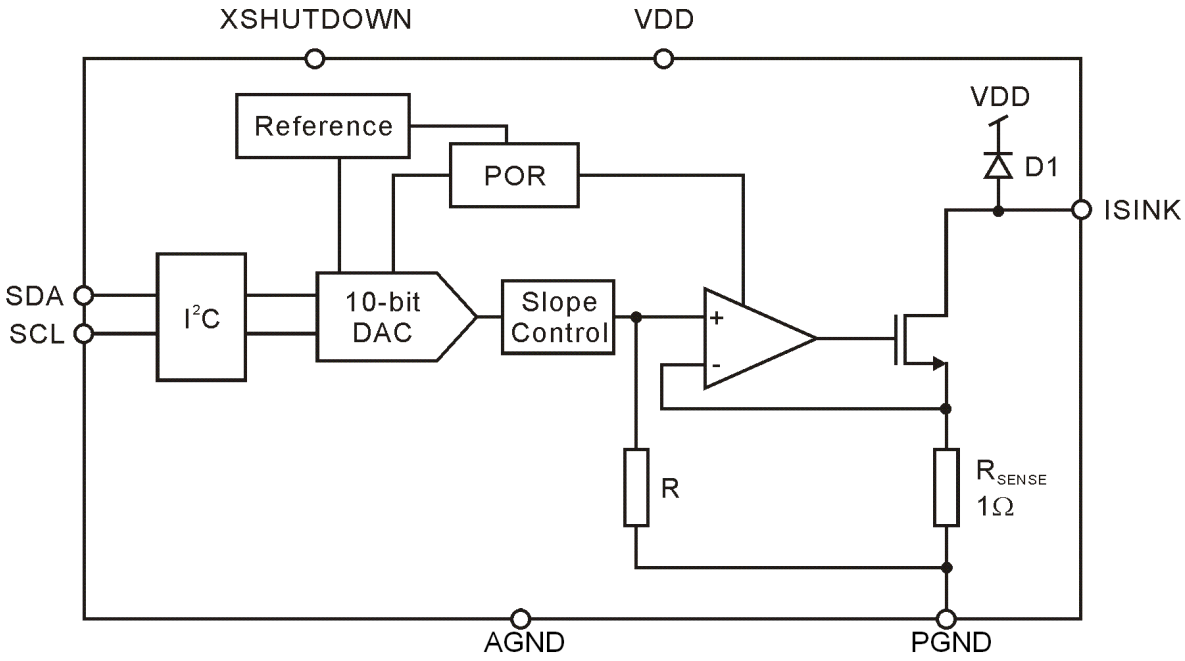
- Lens autofocus
- Image stabilization
- Optical zoom
- Shutters
- Iris/exposure
- Neutral density (ND) filters
- Lens covers
- Camera phones
- Digital still cameras
- Camera modules
- Digital video cameras/camcorders
- Camera-enabled devices
- Security cameras
- Web/PC cameras

INDUSTRIAL APPLICATIONS

- Heater controls
- Fan controls
- Cooler (Peltier) controls
- Solenoid controls
- Valve controls
- Linear actuator controls
- Light controls
- Current loop controls

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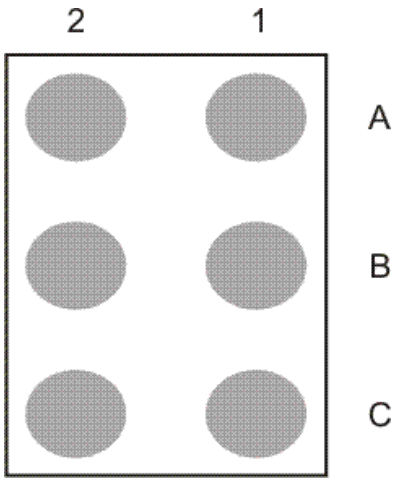
BLOCK DIAGRAM



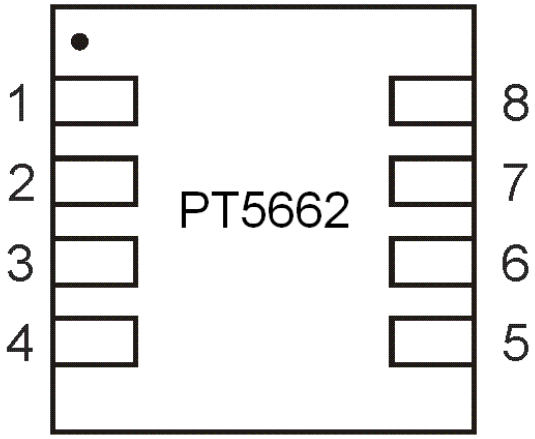
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PIN CONFIGURATION

WCSP-6



DFN-8



PIN DESCRIPTION

WCSP-6

Ball Name	Description	Ball No.
I_{SINK}	Output current sink	A1
Xshutdown	Power down, asynchronous power down signal	A2
GND	Ground pin (Power/Analog/Digital ground)	B1
SDA	I^2C interface signal	B2
VDD	Power supply	C1
SCL	I^2C interface signal	C2

DFN-8

Pin Name	Description	Pin No.
Xshutdown	Power down, asynchronous power down signal	1
NC	No connection	2
SDA	I^2C interface signal	3
SCL	I^2C interface signal	4
AGND	Analog/Digital ground pin	5
VDD	Digital supply voltage	6
PGND	Power ground pin	7
I_{SINK}	Output current sink	8