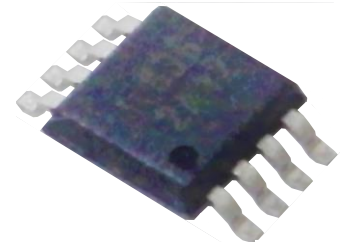


12bit 200Ksps Analog to Digital Converter IC

MM3802A12WBE



Outline

MM3802 is a 12-bit successive approximation type of A/D converter IC, which supports differential input system. The data sampling rate, corresponding to 200Ksps at the maximum is controlled by an external clock. The communication is compatible with 3.3V serial interface. Auto-shutdown function automatically makes this IC enter into ultra-low power consumption mode after the data conversion, leading to reduced power consumption of battery powered devices and others.

Applications

| | |
|----------------------------|---------------------|
| Industrial Instrumentation | Motor Control |
| Robot Control | Medical equipment |
| Battery powered device | Measuring equipment |

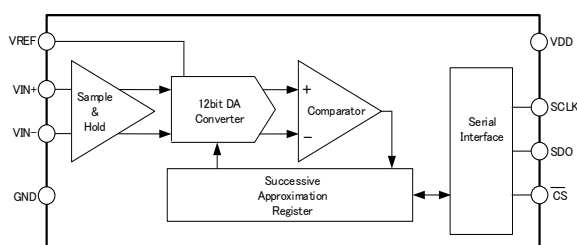
Features

- ① Differential analog input
- ② Sampling rate: 200Ksps max.
- ③ ultra-low power consumption mode 0μW (at shutdown)
- ④ Simple Serial Interface
- ⑤ Available 3.3V Interface system
- ⑥ 8pin SOP package
- ⑦ AC-common mode rejection

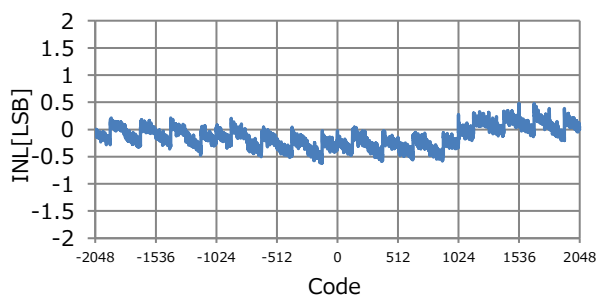
Specification

| Item | Specification | Unit |
|-----------------------|--------------------|------|
| Operation temperature | -40~+85 | °C |
| Power supply | 5 (Max. rating 6V) | V |
| Sampling rate | 200 (Max.) | Ksps |
| Vref voltage | 0.1~2.5 | V |
| Analog input voltage | -Vref~+Vref | V |
| INL | ±2 (Max.) | LSB |
| DNL | ±2 (Max.) | LSB |
| Offset | ±6 (Max.) | LSB |
| Power dissipation | 2.3 (at 200Ksps) | mW |
| | 0 (at shutdown) | |
| Input capacitance | 15 | pF |
| Communication IF | Compatible SPI | - |

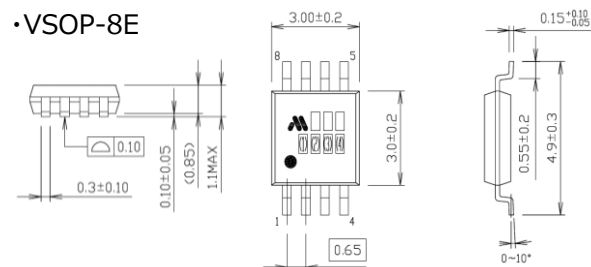
Block Diagram



Typical Performance Characteristics



Package



Application circuit

