

## ULVR-3325-250 0.25mm 3.3v to 2.5v Linear Voltage Regulator

### Features

- ◆ 0.25mm 1P5M 2.5v/3.3v logic salicide CMOS process with 1P3M layout
- ◆ 3.3v to DC 2.5v
- ◆ Maximum output load current: 50mA
- ◆ Operation temperature range: -25°C~125°C
- ◆ Build-in reference voltage
- ◆ Internal voltage divider
- ◆ Power down mode
- ◆ Stable with ceramic capacitor  
≈ 2.2uF

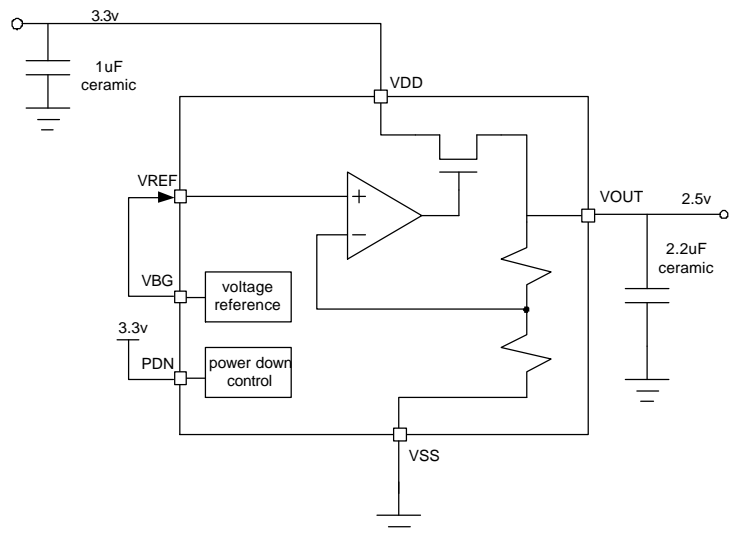
### Applications

- ◆ PCMCIA card
- ◆ Camera

### Overview

The ULVR-3325-250 is a linear voltage regulator IP. The power supply for the regulator is 3.3v, and the regulated output voltage is determined by the VREF input voltage. The regulator incorporates a bandgap circuit for fixing reference voltage generation. The internal feedback loop sets the output voltage to typical 2.5v regardless whether the supply voltage changes or the load current varies. A bypass capacitor is required to provide frequency compensation for the regulator.

### Block Diagram



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## **Description**

The output voltage of the regulator is set by the VREF. The relationship between the input reference voltage VREF and the output voltage VOUT is defined as the following equation:

$$VOUT = VREF \times 2, (1.2v \leq VREF \leq 1.375v)$$

$$VBG = 1.248v(\text{typical})$$

## **Deliverables**

- ◆ **Comprehensive document set**
- ◆ **Hard macro**
- ◆ **Synopsys™ synthesis model**
- ◆ **Verilog model**
- ◆ **TLF model**
- ◆ **LEF model**
- ◆ **Test chip and evaluation board**

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