

ULVR-3318A-180

0.18 μ m 3.3V to 1.8V 100mA Linear Voltage Regulator

Features

- ◆ 0.18 μ m 1.8V/3.3V logic salicide CMOS process with 1P5M layout
- ◆ 3.3V to 1.8V
- ◆ Maximum output load current : 100mA
- ◆ Operation temperature range : 0 $^{\circ}$ C~75 $^{\circ}$ C
- ◆ Build-in voltage reference(typ.=1.228)
- ◆ Power down mode available
- ◆ Stable with 1uF ceramic capacitor
- ◆ Test chip available in SOP-16 package
- ◆ Customized I/O pads available

Applications

- Portable Communication Devices
- PCMCIA Cards
- Camera
- Battery Powered Applications

Overview

ULVR-3318A-180 is a linear voltage regulator IP (LVR) for powering the 1.8V digital core circuit from single 3.3V supply voltage. The regulator incorporates a bandgap circuit for fixing reference voltage generation. The

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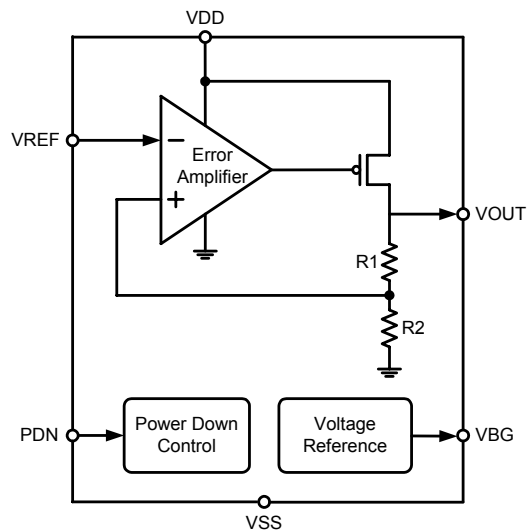
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feedback loop sets the output voltage to 1.8V with small voltage coefficient regardless whether the output load current changes from 0mA up to 100mA or supply voltage varies.

A bypass capacitor is required for proper frequency compensation. A power down mode is available for the regulator.

Block Diagram



Describe

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

$$V_{out} = V_{ref} \times 1.4857 \quad 1.110V \leq V_{ref} \leq 1.310V$$

Deliverables

- Comprehensive document set
- Hard macro
- Synopsys™ synthesis model
- Verilog model
- TLF model
- LEF model
- Testchip and evaluation board