



500mA, Low Dropout, Low Noise, High PSRR CMOS LDO

■ General Description

OCP1405 is a 500mA low dropout, low power linear regulator with NMOS pass transistor and a separate bias supply voltage. OCP1405 provides stable and accurate output for noise sensitive applications. OCP1405 also offers low current consumption for battery operated applications.

The device is a RoHS compliant DFN1.2mm x 1.2mm-6L package.

■ Applications

- Smartphones, Cellphone, PDAs
- Bluetooth, wireless handsets
- Portable equipment

■ Features

- Input Voltage Range: 0.8V to 5.5V
- Bias Voltage Range: 2.6V to 5.5V
- Output Voltage Ranges: 0.8V to 3.6V
- Output Current: 500mA
- Low Quiescent Current: 70 μ A(Typ)
- Shut Down Current: <1 μ A
- Dropout Voltage: 150mV @ 500mA
- PSRR-VIN: 70dB @ 1kHz
- PSRR-VBIAS: 78dB @ 1KHz
- Auto-Discharge function
- Available in DFN package
- -40°C to +85°C Operating Temperature Range

■ Pin Configuration

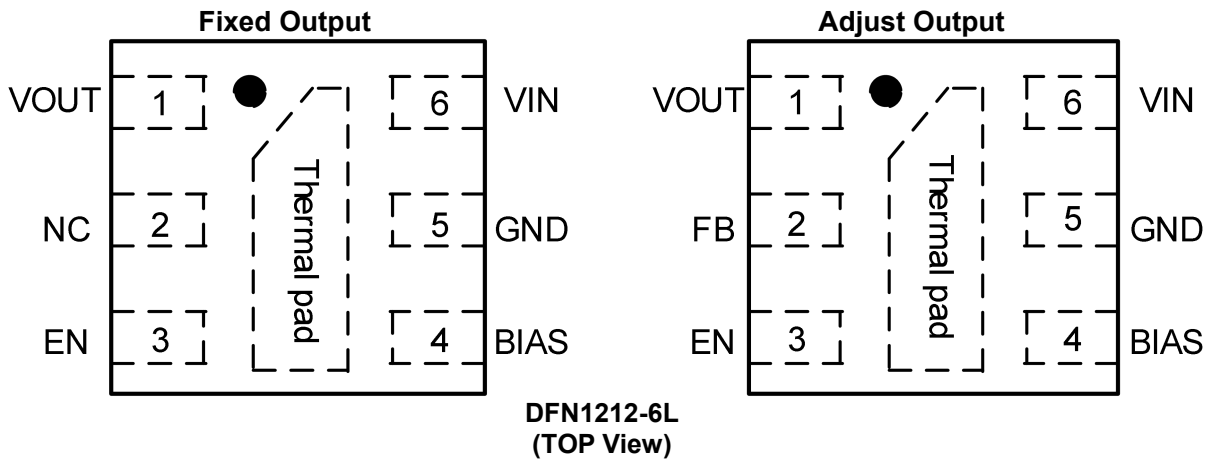


Figure 1, Pin Assignments of OCP1405

Pin Name	Pin Function		
	DFN1212-6L FIXED	DFN1212-6L ADJ	
VOUT	1	1	Regulator Output Pin. Bypass a 2.2 μ F capacitor to ground.
BIAS	4	4	Bias voltage supply for internal control circuits. This pin is monitored by internal Under-Voltage Lockout Circuit. Bypass a 0.1 μ F capacitor to ground.
EN	3	3	Enable control pin, active high. When EN pin is floating, it will be shutdown mode.
VIN	6	6	Regulator Input Pin. 1 μ F decouple capacitor is needed.
GND	5	5	Power Ground
FB	-	2	Feedback
NC	2	-	No Connection
Thermal pad	-	-	Thermal pad



■ Typical Application Circuit

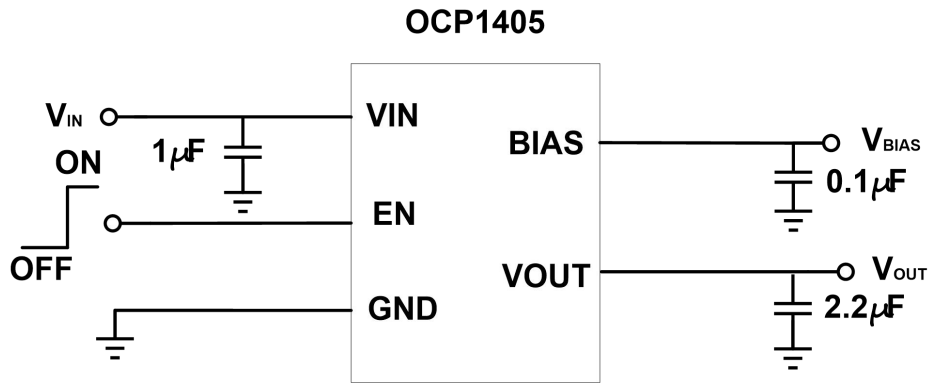


Figure 2, Fixed Voltage Typical Application Circuit of OCP1405

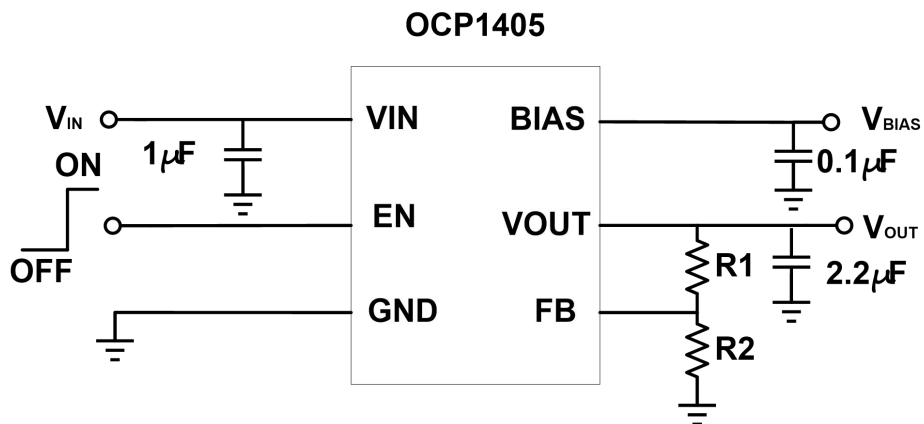


Figure 3, Adjustable Voltage Typical Application Circuit of OCP1405



■ Block Diagram

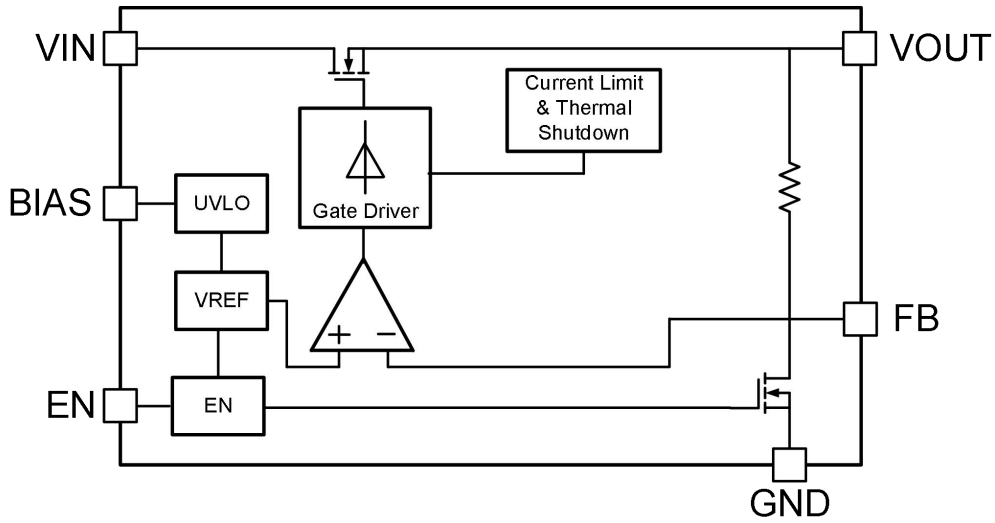


Figure 4. Adjustable Version Block Diagram

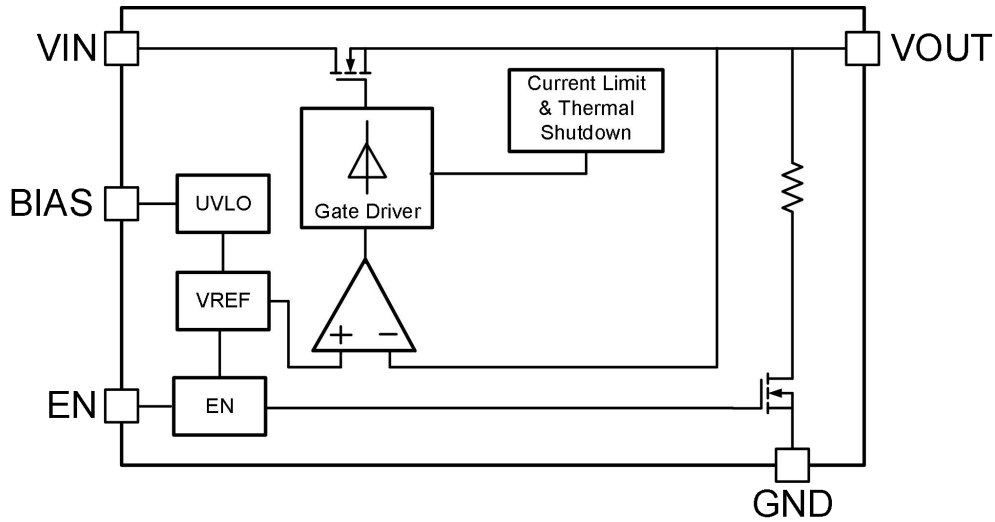


Figure 5. Fixed Version Block Diagram