

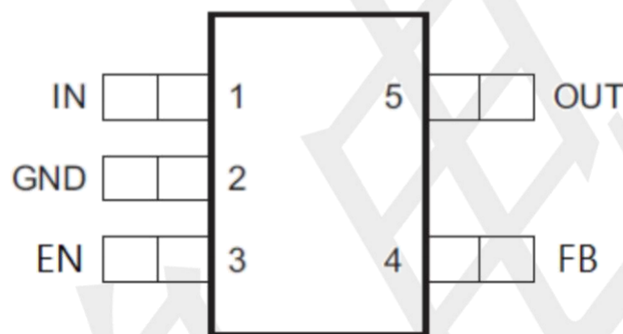
Features

- VIN Range up to 6V
- Output Voltage Tolerances of $\pm 2\%$
- Output Current of 500mA
- Ultra Low Quiescent Current ($I_Q = 1.5\mu A$)
- Internal Thermal Overload Protection
- Internal Short - Circuit Current Limit
- Ceramic Capacitor Stable

Applications

- Portable, Battery Powered Equipment
- Ultra Low Power Microcontroller
- Notebook computers
- High-Efficiency Linear Power Supplies
- High-Efficiency Post-Regulator for Switching Supply

PIN CONFIGURATION



SOT23-5(TOP VIEW)

Pin Number	Pin Name	Pin Function
1	VIN	Input of Supply Voltage.
2	GND	Ground Pin.
3	EN	Enable Control Input.
4	FB	Feedback 0.8V
5	VOUT	Output of the Regulator

Absolute Maximum Ratings over operating free-air temperature range (unless otherwise noted)

SYMBOL	PARAMETER	RATINGS	UNIT
VIN	Continuous input voltage range	-0.3 to +6.5V	V
VEN	Enable Input Voltage	-0.3 to VIN	V
TL	Lead Temperature (Soldering, 10 sec.)	300	°C
TJ	Junction Temperature	+150	°C
Ts	Storage Temperature	-65 ~ +150	°C

Operating Ratings

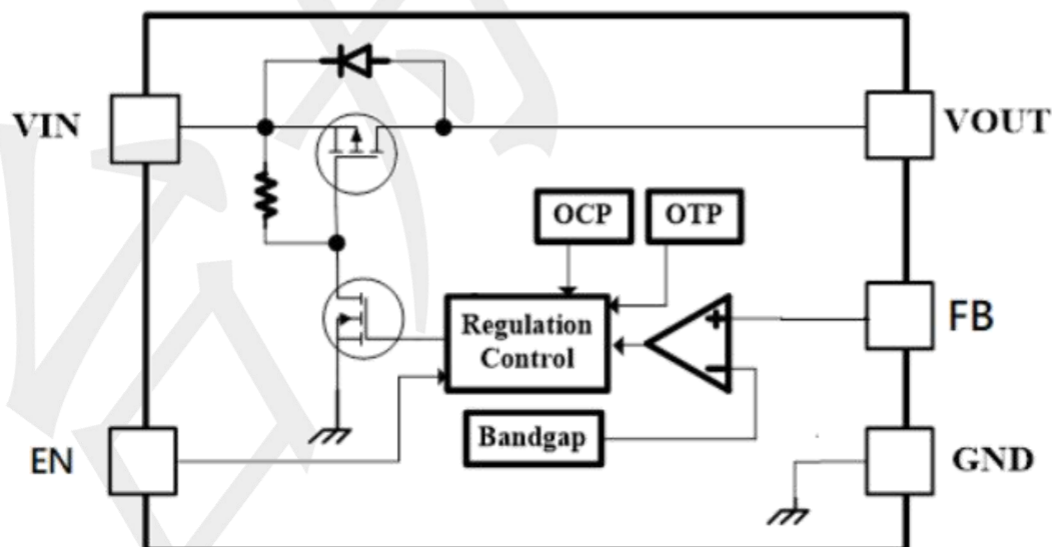
PARAMETER	SYMBOL	RATINGS	UNIT
Maximum Operating Input Voltage	VIN	+2.5V to +6.0V	V
Junction Temperature	TJ	-40 ~ +125	°C
Ambient Temperature	TA	-40 ~ +85	°C

Notice: Stresses above those listed under “Absolute Maximum Ratings” may cause permanent damage to the device.

This is a stress rating only and functional operation of the device at those or any other conditions above those indicated in the operational sections of this specification is not intended. Exposure to maximum rating conditions for extended periods may affect device reliability.

Notice: The device is not guaranteed to function outside its operating ratings.

BLOCK DIAGRAM

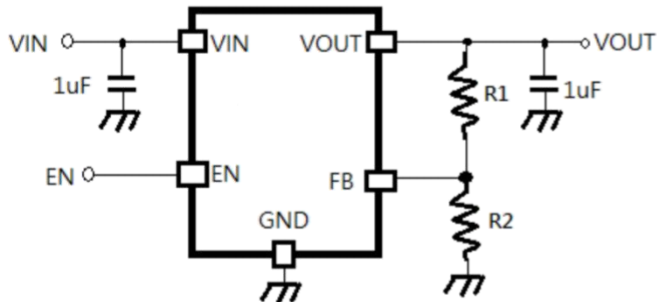


Electrical Characteristics

$V_{IN} = V_{OUT} + 1V$, $I_{OUT} = 1mA$, $C_{IN} = C_{OUT} = 1\mu F$, $T_J = 25^\circ C$, unless otherwise specified

PARAMETER	SYMBOL	Conditions	MIN	TYP	MAX	UNIT
Feedback Voltage Accuracy	V_{FB}		0.784	0.8	0.816	V
Line Regulation	ΔV_{LINE}	$V_{IN} = V_{OUT} + 1V$ to 5.5V	--	0.6	1.5	%
Load Regulation	ΔV_{LOAD}	$I_{OUT} = 1mA$ to 250mA	--	--	1.0	%
		$I_{OUT} = 1mA$ to 500mA	--	--	3.0	%
Dropout Voltage	V_{DROP}	$I_{OUT} = 100mA$, $V_{OUT} = 3.3V$	--	130	--	mV
		$I_{OUT} = 500mA$, $V_{OUT} = 3.3V$	--	660	--	mV
		$I_{OUT} = 100mA$, $V_{OUT} = 1.8V$	--	200	--	mV
Quiescent Current	I_Q	$T_J = 25^\circ C$	--	1.5	3.0	μA
Current Limit	I_{CL}		510	610	--	mA
Enable high level	V_{ENHI}		0.7	--	--	V
Enable low level	V_{ENLO}		--	--	0.2	V
Power - supply rejection ratio	PSRR	$f = 1kHz$	--	50	--	dB
Thermal Shutdown	T_{SD}		--	150	--	$^\circ C$
Thermal Shutdown Hy	T_{SDHY}		--	20	--	$^\circ C$

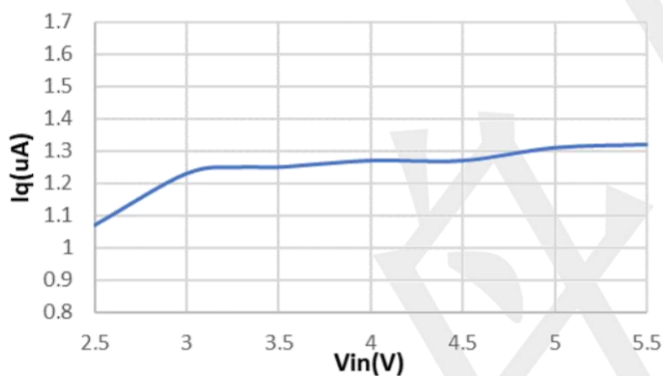
Typical Application Circuit



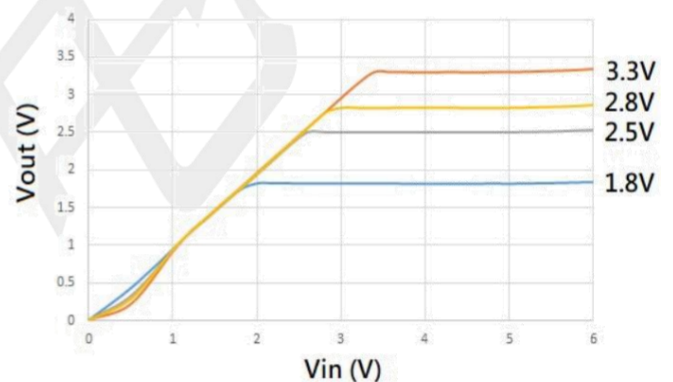
Ceramic Capacitor Stable

Vout	R1	R2
3.3	1162K	330K
3.0	1026K	330K
2.5	800K	330K
1.8	484K	330K

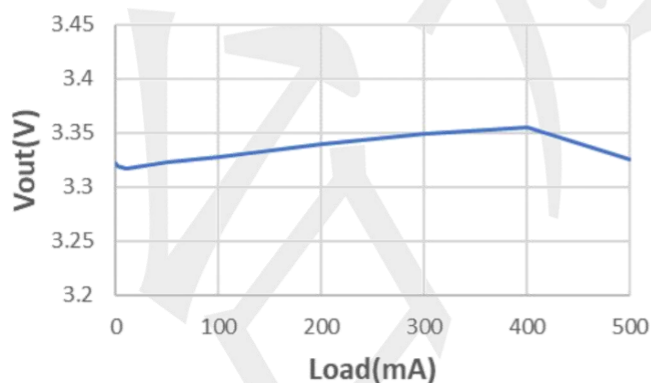
Typical Characteristics



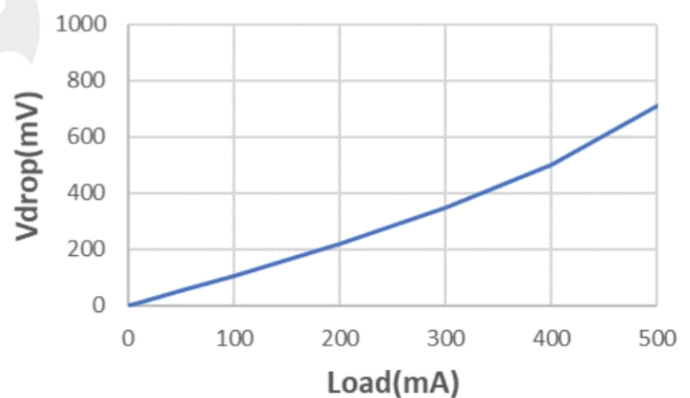
I_Q vs V_{IN} (I_{OUT} = 0mA)



V_{OUT} vs V_{IN} (I_{OUT} = 1mA)



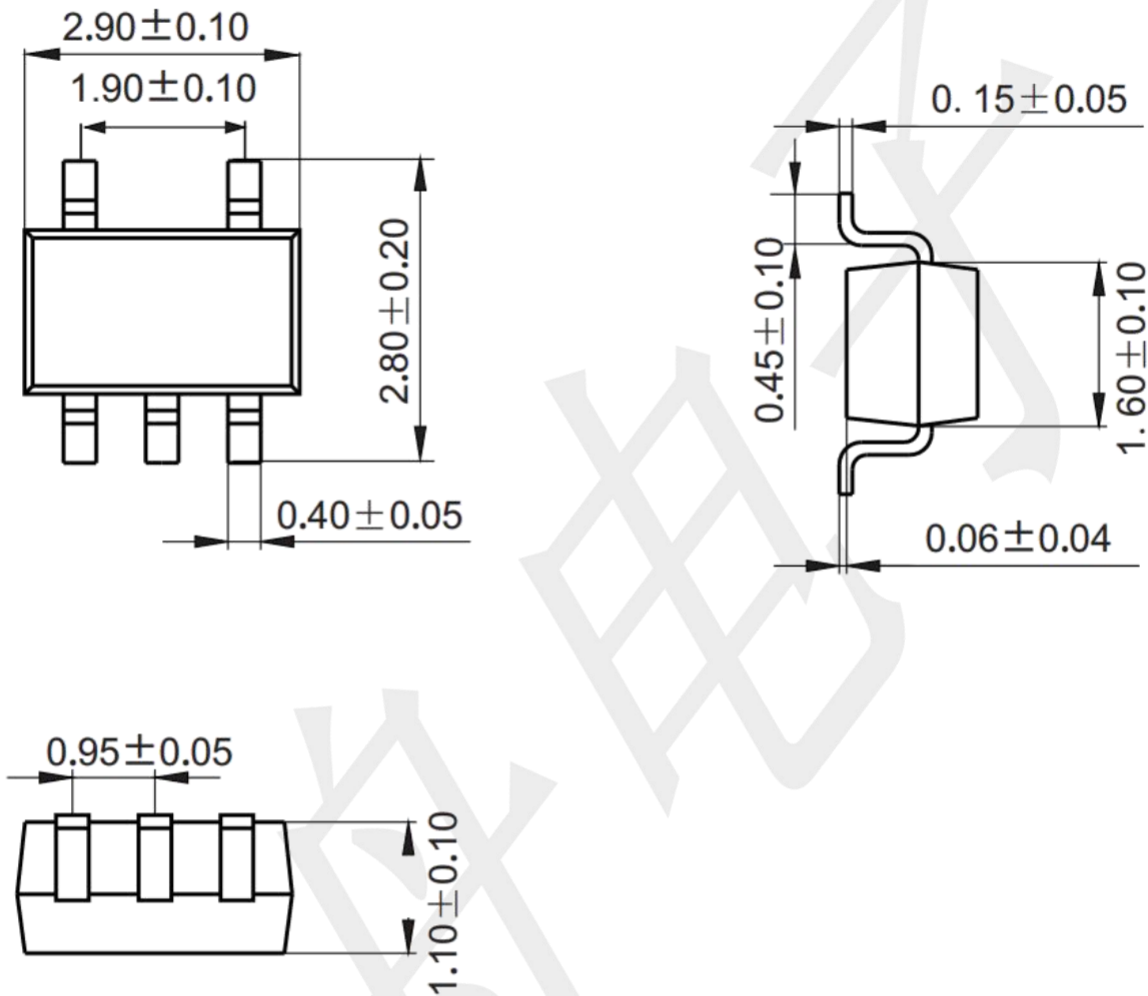
V_{OUT} vs Load



V_{DROP} vs Load

Package informantion (unit: mm)

SOT23-5



Mounting Pad Layout (unit: mm)

