

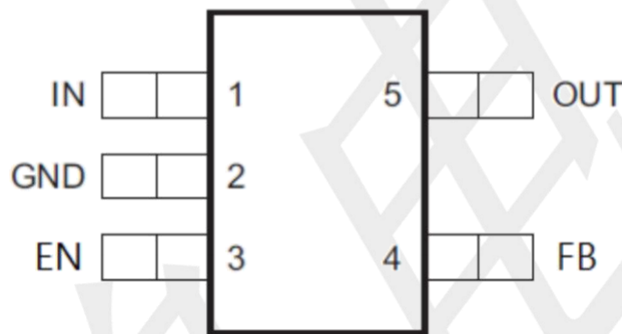
### Features

- 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
V <sub>IN</sub>	Continuous input voltage range	-0.3 to +6.5V	V
V <sub>EN</sub>	Enable Input Voltage	-0.3 to V <sub>IN</sub>	V
T <sub>L</sub>	Lead Temperature (Soldering, 10 sec.)	300	°C
T <sub>J</sub>	Junction Temperature	+150	°C
T <sub>S</sub>	Storage Temperature	-65 ~ +150	°C

### Operating Ratings

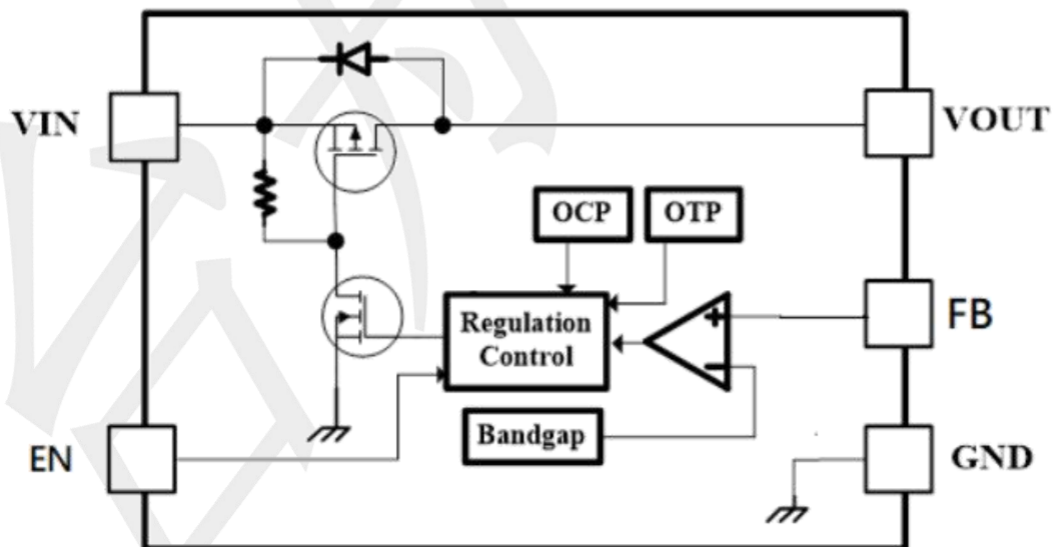
PARAMETER	SYMBOL	RATINGS	UNIT
Maximum Operating Input Voltage	V <sub>IN</sub>	+2.5V to +6.0V	V
Junction Temperature	T <sub>J</sub>	-40 ~ +125	°C
Ambient Temperature	T <sub>A</sub>	-40 ~ +85	°C

**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

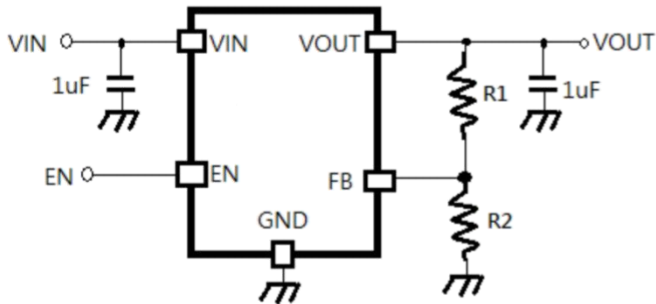


### Electrical Characteristics

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

PARAMETER	SYMBOL	Conditions	MIN	TYP	MAX	UNIT
Feedback Voltage Accuracy	$V_{FB}$		0.784	0.8	0.816	V
Line Regulation	$\Delta V_{LINE}$	$V_{IN} = V_{OUT} + 1V$ to 5.5V	--	0.6	1.5	%
Load Regulation	$\Delta V_{LOAD}$	$I_{OUT} = 1mA$ 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	$\mu A$
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	--	$^\circ C$

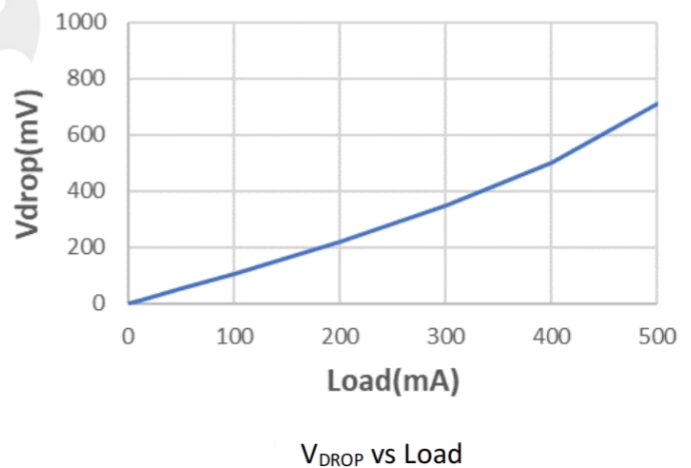
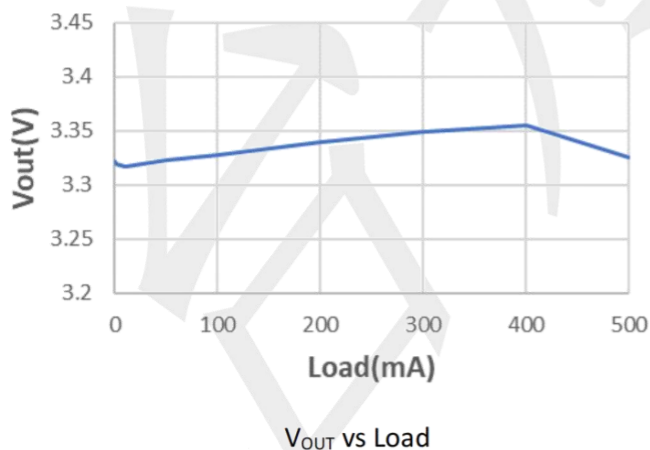
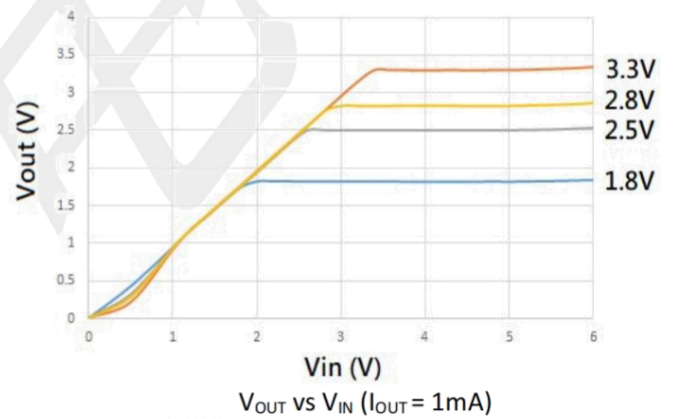
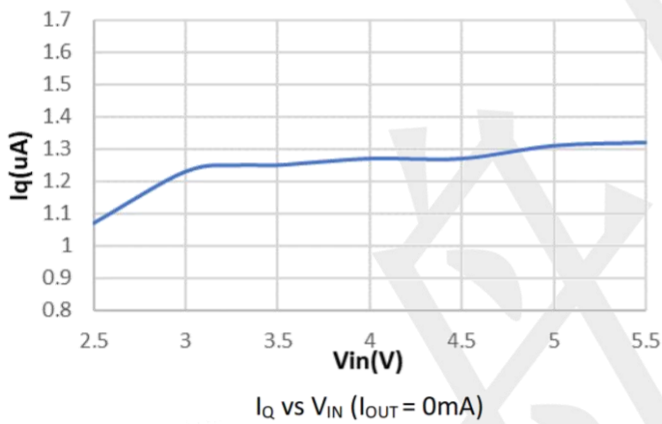
### Typical Application Circuit



### Ceramic Capacitor Stable

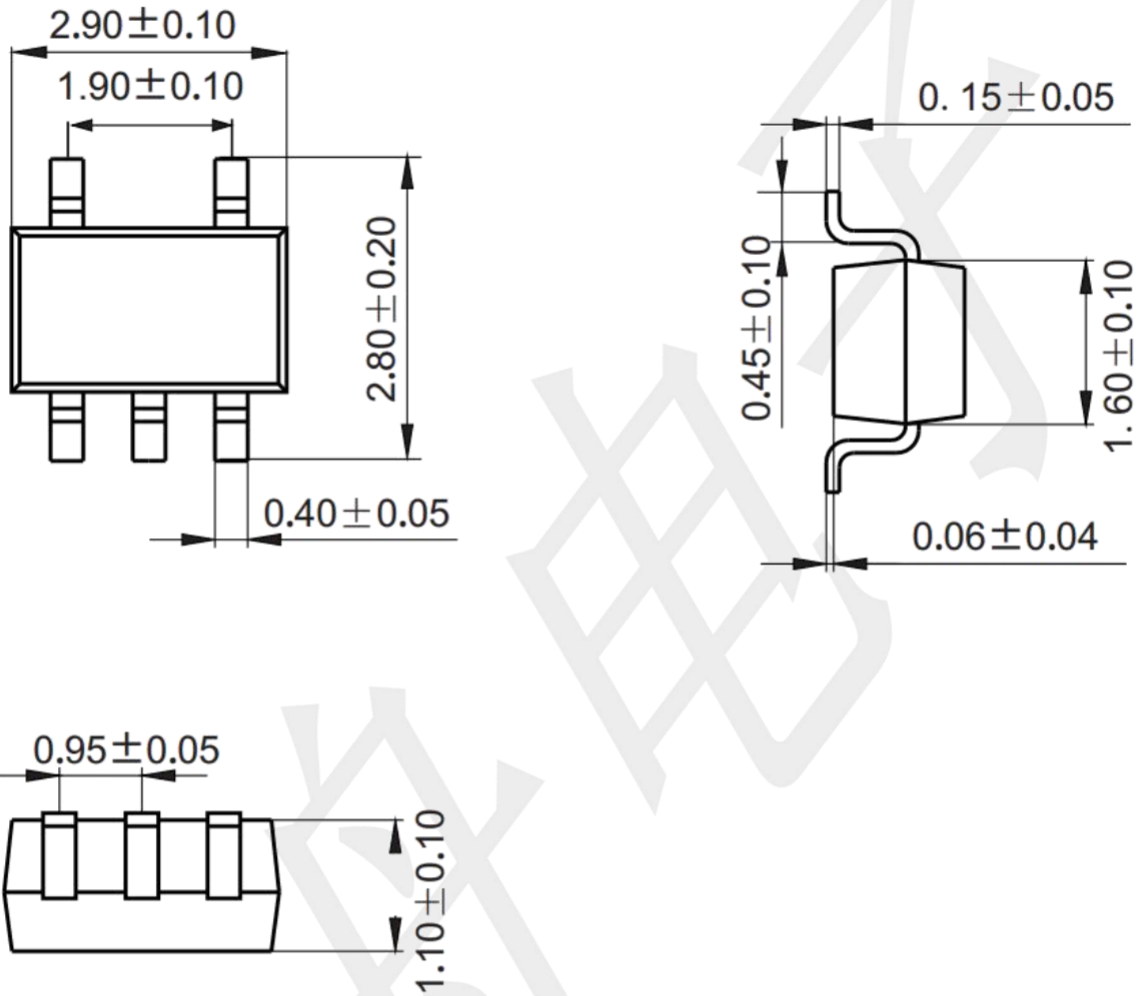
Vout	R1	R2
3.3	1162K	330K
3.0	1026K	330K
2.5	800K	330K
1.8	484K	330K

### Typical Characteristics



### Package information (unit: mm)

SOT23-5



### Mounting Pad Layout (unit: mm)

