

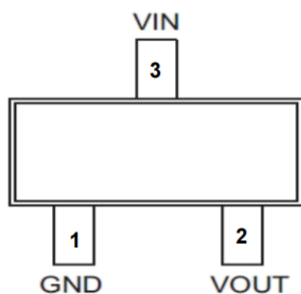
Features

- 2.5 μ A (Typ) Current at no Load
- $\pm 2\%$ Output Accuracy
- 200mA Output Current
- Current Limit Protection

Applications

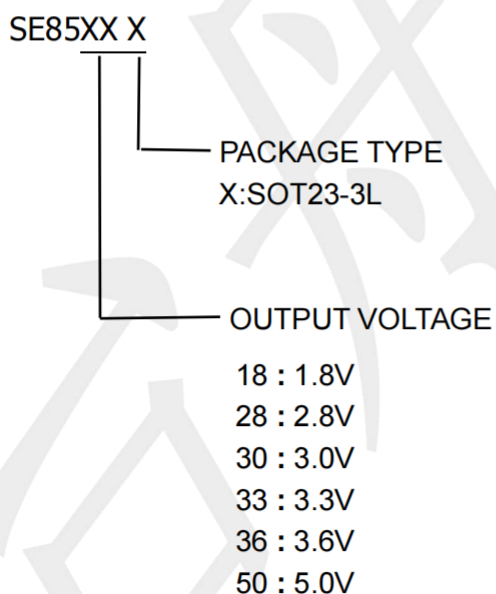
- Industrial Controls
- Home Automation
- Modules (Wireless, Camera, etc.)
- Portable, Battery Powered Equipment

PIN CONFIGURATION



Pin Number	Pin Name	Pin Function
SOT23-3L		
1	GND	Ground
2	VOUT	Output of the Regulator
3	VIN	Input of Supply Voltage

Ordering Information



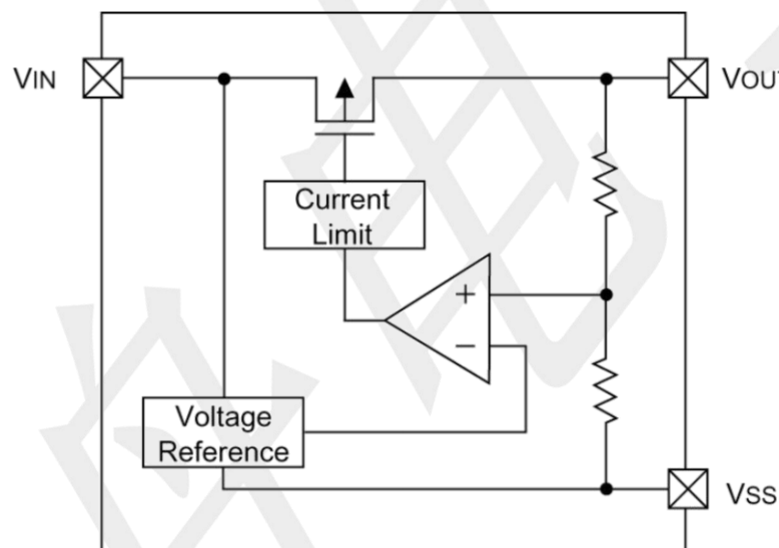
Example: SE8533X
→ 3.3V Version, in SOT23-3L Package & Tape & Reel Packing Type

Absolute Maximum Ratings

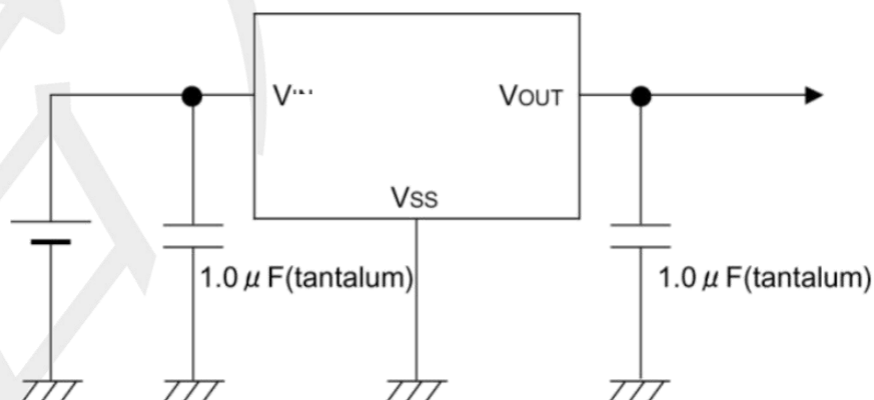
over operating free-air temperature range (unless otherwise noted)

		MIN	MAX	UNIT
VIN	Continuous input voltage range	-0.3	40	V
VOUT	Output voltage range	-0.3	6.0	
IOUT	Output pin current	Internally limited		mA
Temperature	Lead Temperature (Soldering) 10 seconds T_{LEAD}	260		°C
	Operating Temperature Range , T_{opr}	-40	+85	
	Storage, T_{stg}	-40	+125	

BLOCK DIAGRAM



Typical Application Circuit



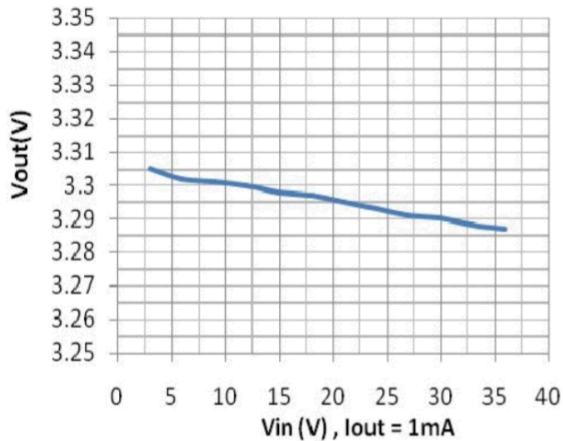
Electrical Characteristics

(VIN=VOUT+1V, TA=25°C, unless otherwise specified)

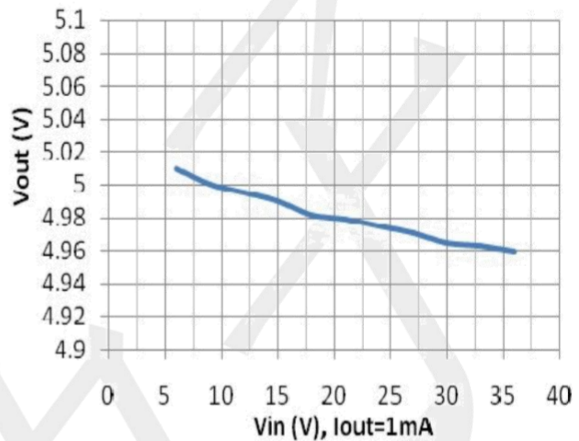
PARAMETER	SYMBOL	TEST Conditions	MIN	TYP	MAX	UNIT
Supply Voltage	VIN		1.8	--	36	V
Output current	IOUT		200	250	--	mA
DC Output Voltage Accuracy		IOUT = 1mA	-2	--	2	%
Dropout Voltage (VIN-VOUT)	VDROP	IOUT=10mA $\Delta V_{OUT} = -V_{OUT} * 2\%$	--	30	--	mV
		IOUT=100mA $\Delta V_{OUT} = -V_{OUT} * 2\%$	--	300	--	
		IOUT=200mA $\Delta V_{OUT} = -V_{OUT} * 2\%$	--	600	--	
Ground Current (IOUT = 0mA)	IQ	VOUT = 3.3V	--	2.5	6	uA
Shutdown Ground Current	ISD	VEN = 0V,	--	0.01	1	
VOUT Shutdown Leakage Current	ILEAK	VOUT = 0V	--	0.01	1	
Load Regulation	VLR	1mA ≤ IOUT ≤ 100mA	--	40	--	mV
Line Regulation	VSR	IOUT=1mA, VIN=(VOUT+1V) to 30V	--	0.02	--	%/V
Output Current Limit	ILIM	VOUT=0.9× VOUT(NOM)	300	--	--	mA
Power Supply Rejection Ratio	PSRR	VOUT = 3.3V, IOUT = 10mA, VIN = 12V, f = 1kHz	--	80	--	dB
Output Voltage Temperature Coefficient	TCVOUT	IOUT=10mA -40°C ≤ TAMB ≤ 100°C		±100		ppm/ °C
Package Thermal Resistance θJA (Note 1)	Thermal Ambient	Resistance Junction-to	--	210	--	°C/W
Total Power Dissipation TC=25°C		PDTOT	--	0.2	--	W
Thermal Protection	TSHDN		--	150	--	°C

Note: Test condition: For SOT23-3L, the device is mounted on FR-4 substrate PC board, with minimum recommended pad layout.

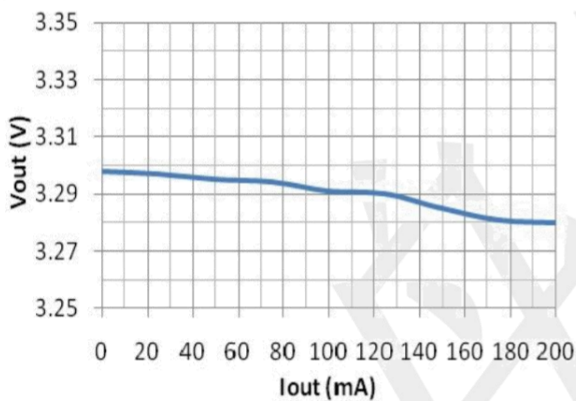
Typical Operating Characteristics (25 °C, unless otherwise noted)



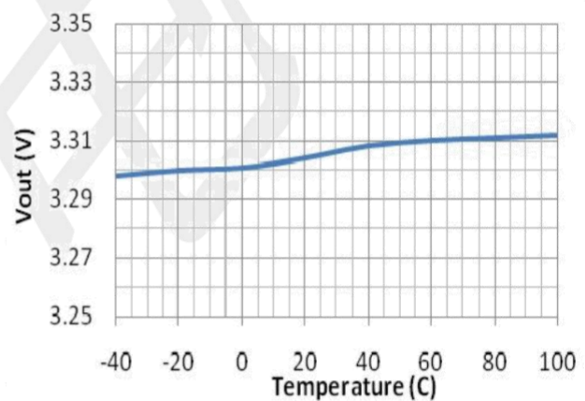
V_{OUT}: 3.3V



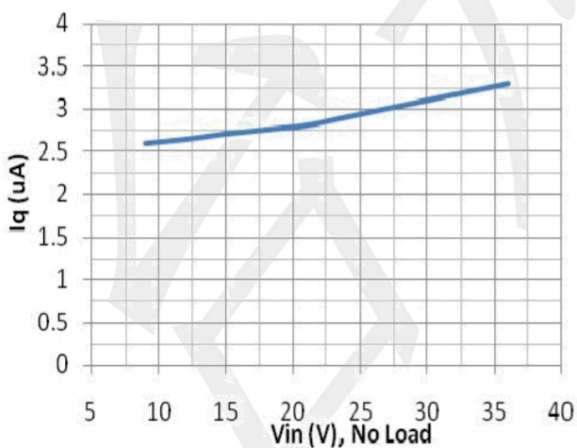
V_{OUT}: 5.0V



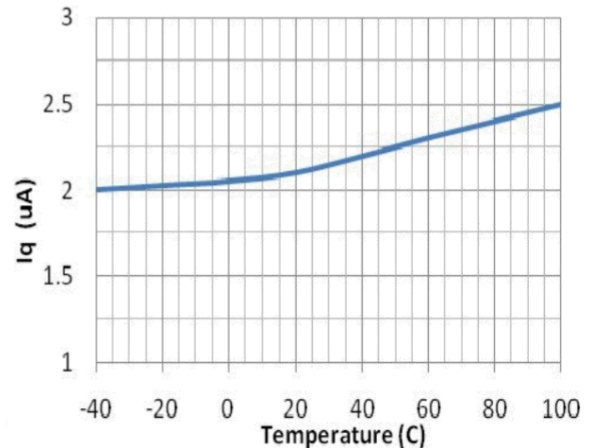
V_{OUT}: 3.3V



V_{OUT}: 3.3V



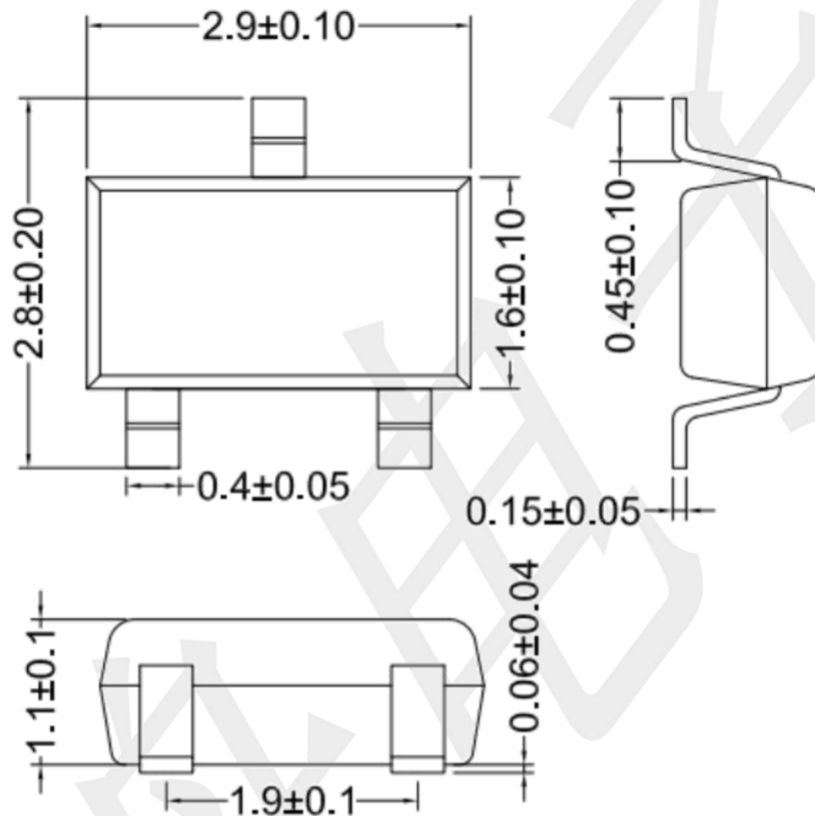
V_{OUT}: 3.3V



V_{OUT}: 5.0V

Package Outline Dimensions (unit: mm)

SOT23-3L



Mounting Pad Layout (unit: mm)

