

XC62E Series Boosting Voltage Regulators

General Description

The XC62E series are a group of positive output voltage regulators that can supply up to 1A of output current using an external transistor.

Low power and high accuracy are achieved through CMOS process and laser trimming technologies.

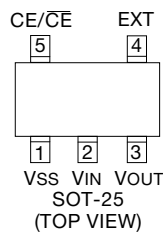
The series consists of a high precision voltage reference, an error correction circuit and a short-circuit protected output driver.

In stand-by mode, supply current can be dramatically cut. Since the input-output voltage differential is small, loss control efficiency is good.

The XC62E is particularly suited for use with battery operated portable products, and products where supply current regulation is required.

The series comes in an ultra small SOT-25 package. In connection with the CE function, apart from the negative logic XC62EP series, a positive logic XC62ER series (custom) is also available.

Pin Configuration



Features

Ultra low dropout voltage:

100mV @ 100mA

(Performance depends on the external transistor characteristics)

Maximum Output Current: 1000mA

Output Voltage Range: 2.0V to 6.0V in 0.1V increments

Highly Accurate: Setup voltage $\pm 2\%$

Low power consumption: TYP 50 μ A [VOUT=5.0V],
TYP 0.2 μ A [Stand-by mode]

Output voltage temperature characteristics: TYP ± 100 ppm/ $^{\circ}$ C

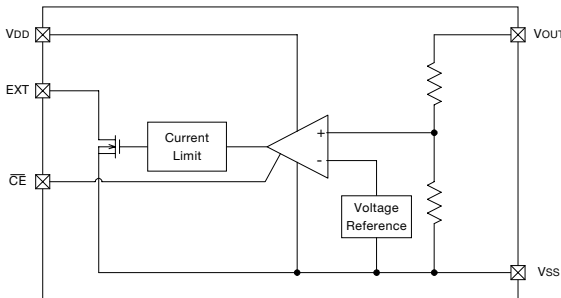
Line regulation: TYP 0.1%/V

Ultra small package: SOT-25 mini-mold

Pin Assignment

PIN NUMBER	PIN NAME	FUNCTION
1	VSS	Ground
2	VIN	Supply Voltage Input
3	VOUT	Regulated Voltage Output
4	EXT	Base Current Control
5	CE/CE	Chip Enable

Block Diagram



Ordering Information

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DESIGNATOR	DESCRIPTION	DESIGNATOR	DESCRIPTION
a	CE pin Logic : P = Negative R = Positive	e	Package Type M = SOT-25
b	Output Voltage : 30 = 3.0V 50 = 5.0V		
c	Temperature Coefficients : 0 = ± 100 ppm (typical)	f	Device Orientation : R = Embossed Tape (Right) L = Embossed Tape (Left)
d	Output Voltage Accuracy : 1 = $\pm 1.0\%$ (Semi-Custom) 2 = $\pm 2.0\%$		