

3. Voltage Regulators

XC62KN Series Negative Voltage Regulators

General Description

The XC62K series are highly precise, low power consumption, negative voltage regulators, manufactured using CMOS and laser trimming technologies. The series achieves high output currents with small input-output voltage differentials, and consists of a high precision voltage reference, an error correction circuit, and an output driver with current limitation. SOT-23 (150mW) and SOT-89 (500mW) packages are available.

Features

Low Dropout Voltage:

120mV @50mA (-5.0V)

Maximum Output Current: 100mA

(within Maximum power dissipation, $V_{out} = -5.0V$)

Output Voltage: -2.1V to -6.0V in 0.1V increments

-5.0V, -4.0V, -3.0V, -2.5V standard
(all other voltages are semi-custom)

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

($\pm 1\%$ for semi-custom products)

Low power consumption: TYP 3.0 μA [$V_{out} = -5.0V$]

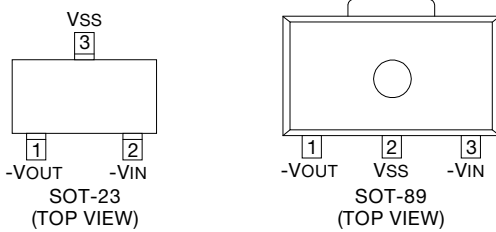
Output voltage temperature characteristics: TYP $\pm 100ppm/^{\circ}C$

Line regulation: TYP 0.1 %/V

Ultra small package: SOT-23 (150mW) mini-mold

: SOT-89 (500mW) mini-power mold

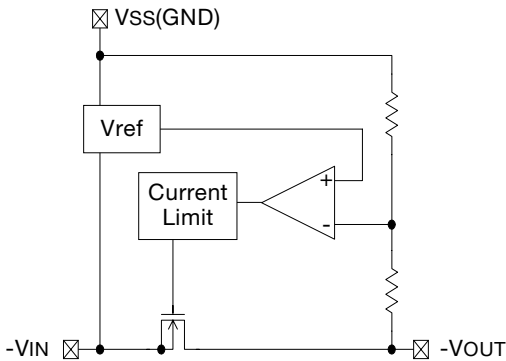
Pin Configuration



Pin Assignment

PIN NUMBER		PIN NAME	FUNCTION
SOT-23	SOT-89		
2	3	-VIN	Power Supply Input
3	2	VSS	Ground
1	1	-VOUT	Output

Block Diagram



Ordering Information

XC62K x x x x x x
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 a b c d e f

DESIGNATOR	DESCRIPTION	DESIGNATOR	DESCRIPTION
a	Polarity of Output Voltage N = Negative	e	Package Type M = SOT-23 P = SOT-89
b	Output Voltage 30 = 3.0V 50 = 5.0V		
c	Temperature Characteristics 0 = $\pm 100ppm/^{\circ}C$ (typical)	f	Device Orientation R = Embossed Tape (Orientation of Device : Right) L = Embossed Tape (Orientation of Device : Left)
d	Accuracy 1 = $\pm 1.0\%$ (Semi-custom products) 2 = $\pm 2.0\%$		