Preliminary

- **Low Power Consumption : 10μA (2.0V)**
- **Operating Voltage Range : 3.0V to 10.0V**
- **Output Voltage Temp. Coefficient : TYP -3900ppm / °C**
- **SOT-25 Package**

■ Applications

- Mobile phones
- Portable AV equipment
- Palm top computers, PDAs
- Battery powered equipment

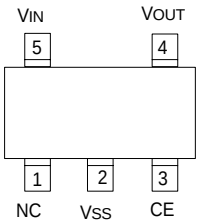
■ General Description

The XC31B series are ultra small CMOS temperature sensor ICs.
As a bandgap type temperature sensor is built-into the XC31B, linearity, in comparison to thermistor type temperature sensors, is much better.
The operating temperature range of the series is from -30°C to +80°C.
The XC31B comes in a mini molded SOT-25 package with a quiescent current of only 10 μA (2.0V) and as such, is suitable for use with various portable devices.
Output voltage is selectable in 0.1V steps within a range of 2.0V to 6.0V (at 25°C).

■ Features

Operating Voltage Range : 3.0V to 10.0V
Output Voltage Range : 2.0V to 6.0V
Output Voltage Accuracy : ± 2%
Operating Temperature Range : -30°C to 80°C
Output Voltage Temp. Coefficient : TYP -3900ppm / °C
Low Power Consumption : 10 μA (2.0V)

■ Pin Configuration

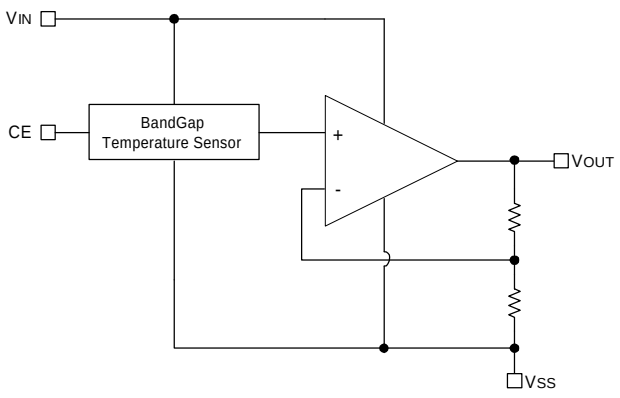


SOT-25
(TOP VIEW)

■ Pin Assignment

PIN NUMBER	PIN NAME	FUNCTION
1	NC	No Connection
2	VSS	Ground
3	CE	Chip Enable
4	VOUT	Output
5	VIN	Power Supply

■ Block Diagram



■ Absolute Maximum Ratings

Ta = 25°C, VSS = 0V

PARAMETER	SYMBOL	RATINGS	UNITS
Input Voltage	VIN	-0.3 to 12	V
Output Voltage	VOUT	-0.3 to 12	V
CE Pin Voltage	VCE	-0.3 to VIN + 0.3	V
Output Current	IOUT	20	mA
Power Dissipation	Pd	150	mW
Operating Ambient Temperature	Topr	-30 to +80	°C
Storage Temperature	Tstg	-40 to +125	°C