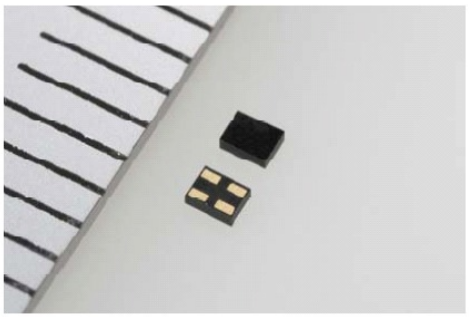
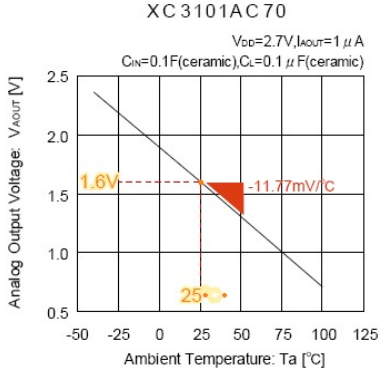
Analog Temperature Sensor Offers Low Quiescent Current

Torex Semiconductor has developed an ultra-small (1.2 x 0.9 x 0.4mm) analog temperature sensor with low quiescent current and alarm temperature detection function. The XC3101 series of analog temperature sensors use the ultra-small USPN-4 package (1.2 x 0.9 x h0.4mm), achieve low quiescent currents, and includes an alarm temperature detection function. The output combines an analog output and an N-ch open drain alarm output in an ultra-small size.



▲XC3101 Series USPN-4 (1.2 x 0.9 xh0.4mm)



▲XC3101 Series Analog Output Characteristics

The operating voltage range is 2.7V to 5.5V and can be driven by a lithium ion battery or 5V line. The quiescent current
is a low 3.5?A (TYP.), and these sensors are ideal for temperature detection in battery devices. The analog output
provides a high-accuracy analog voltage (1.600V @ 25?) in the range -40? to 100?. The analog output temperature
coefficient is -11.77mV/?. The alarm temperature is set to 70? (±4.5?) and the hysteresis is set to 5?.
In addition to the ultra-small USPN-4 package, the standard-type SSOT-24 is also used. This environmentally friendly
product complies with the EU RoHS Directive and is Pb free.

XC3101 Series Features
? Combines two outputs, analog and alarm, in an ultra-small USPN-4 package (1.2 x 0.9 x h0.4mm)
? 2.7V to 5.5V operating voltage range supports either a lithium ion battery or a 5V line
? Low quiescent current: 3.5?A (TYP.)
? Analog output voltage: 1.600V @ 25?, Analog Output Temperature Coefficient: -11.77mV/?

Torex specializes in CMOS analog technology, with LDO voltage regulators, voltage

detectors and DC/DC converters
making up our core product offering. http://www.torex.co.jp/english/ [1]
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