

Temperature Sensor IC (Analog Output)

MM3154





Outline

This IC is a high-accuracy temperature sensor IC that can linearly output the voltage in response to changes in temperature. The operating temperature range is -40°C to 100°C. Compared to conventional thermistors and similar devices, it has superior linearity and a maximum temperature accuracy error of \pm 2.5°C. It is suitable for use in portable devices as the current consumption is as low as $4.5\mu A$ typ. (Ta = 25°C)

Applications

Smart phones, Mobile phones System temperature monitering Office automation equipments

Flat TVs Geme console

Features

- ① High temperature accuracy ±2.5°C
- 2 Low current consumption 4.5µA typ.
- 3 Wide operating supply power voltage ... 2.4V to 6.5V
- 4 High input stability
- ⑤ High load stability
- 6 Temperature-output voltage high linearity

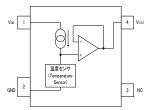
Specification

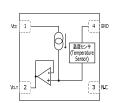
Item	Specification	Unit
Operation temperature	-40~+100	$^{\circ}$
Power supply	2.4~6.5	V
Power dissipation	4.5 (typ.)	μΑ
Temperature accuracy	±2.5 (-30~+100°C max.)	$^{\circ}$
Temperature sensitivity	-8.20 (-30 \sim +100 $^{\circ}$ C typ.)	mV/℃
Nonlinearity	±0.5 (-20~+80℃ typ.)	%
Line Regulation	0.03 max.	%/V
Load Regulation	1.0 max	mV

Block Diagram

1) MM3154XU

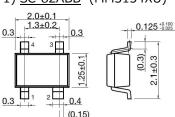
2) MM3154XR

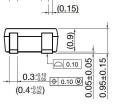


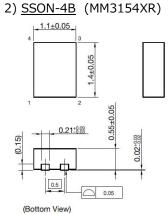


Package

1) SC-82ABB (MM3154XU)

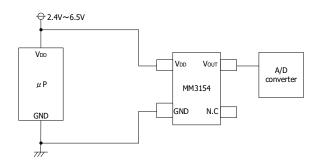








Application circuit



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