



Description

MR74039 – Temperature Sensor
 0.35um Temperature Sensor with Digital Output

Part Number:
 MR74039

Features:
 12 Bit digital output
 Small area
 Low power
 3.3V Supply
 Power Down

Technology:
 XFab XH035
 3.3V

Deliverables:
 GDSII
 Abstract
 Design Report
 Verilog Model

Circuit Status:
 Pre-Silicon

Design rights:
 Moortec Owned

Overview:

The MR74039 is a fully integrated temperature sensor with a 12 Bit digital output designed in the XFab 0.35um XH035 process

Utilises a 12 bit Sigma Delta ADC for increased precision (0.25°C)

Temperature measurement range: 0C to 125C

Accuracy: Absolute error: ±1°C (typical), ±5°C (max)

Trimable for higher accuracy (±1°C)

Supply Range 3.3V ± 10%

Input clock frequency 1MHz (nominal) 2MHz (max).

Fully Integrated: no external components required, ideal for SoC applications

All input/output signals are fully digital enabling simple integration

Optimised for low current consumption: 2uA (10sample/sec) to 100uA (continuous sampling)

Includes power down facility to enable low power consumption (sleep mode)

Optimised for minimum area: less than 0.1sqmm

Symbol View:

