

ABSOLUTE MAXIMUM RATINGS*

Voltage on V_{DD}	GND -0.3V to +6.5V
Output Current	5.0mA
Operating Temperature Range	-40°C to +125°C
Storage Temperature Range	-55°C to +150°C
ESD Susceptibility (Human Body Model)	2kV
Soldering Temperature	215°C for 60s (Vapor Phase)
220°C for 15s (IR)	

* These are stress ratings only and functional operation of the device at these or any other conditions above those indicated in the operation sections of this specification is not implied. Exposure to absolute maximum rating conditions for extended periods of time may affect reliability.

The Dallas Semiconductor DS60 is built to the highest quality standards and manufactured for long-term reliability. All Dallas Semiconductor devices are made using the same quality materials and manufacturing methods. However, the DS60 is not exposed to environmental stresses, such as burn-in, that some industrial applications require.

DC ELECTRICAL CHARACTERISTICS (-40°C to +125°C; $2.7V \leq V_{DD} \leq 5.5V$)

PARAMETER	SYMBOL	CONDITION	MIN	TYP	MAX	UNITS	NOTES
Supply Voltage	V_{DD}		2.7		5.5	V	1
Supply Current	I_{DD}			80	125	μA	2
Measurement Error	T_{ERR}	$0^\circ C \leq T_A \leq 85^\circ C$			± 2	$^\circ C$	2
		$-40^\circ C \leq T_A \leq 125^\circ C$			± 3		
V_O DC Offset		$T = 0^\circ C$		424		mV	1, 2
Sensor Gain	$\Delta V / \Delta T$		6.0	6.25	6.5	mV/ $^\circ C$	2
Nonlinearity					± 0.8	$^\circ C$	2, 3
Power Supply Regulation		$2.7V \leq V_{DD} \leq 3.3V$			± 2.0	mV/V	
		$3.0V \leq V_{DD} \leq 5.5V$			± 0.25	mV/V	
Sensor Drift				± 0.25		$^\circ C$	4
Output Impedance					800	Ω	

NOTES:

- 1) All voltages are referenced to ground unless otherwise specified.
- 2) Specified for V_O sourcing 1.0 μA (max).
- 3) Nonlinearity is the maximum deviation from an ideal linear slope.
- 4) Typical drift following three consecutive passes through a vapor phase process.

Maxim Integrated cannot assume responsibility for use of any circuitry other than circuitry entirely embodied in a Maxim Integrated product. No circuit patent licenses are implied. Maxim Integrated reserves the right to change the circuitry and specifications without notice at any time. The parametric values (min and max limits) shown in the Electrical Characteristics table are guaranteed. Other parametric values quoted in this data sheet are provided for guidance.

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