Following the acquisition of Adesto Technologies, Dialog Semiconductor offers memory products as part of its product portfolio. The existing content from datasheets, including part numbers and codes should be used. Terms of Purchase are provided on the Dialog website

https://www.dialog-semiconductor.com/general-terms-and-conditions-purchase

View our Dialog memory products portfolio:

www.dialog-semiconductor.com/products/memory

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AT25DL161

16-Mbit, 1.65V Minimum
SPI Serial Flash Memory with Dual-I/O Support

DATASHEET (ADDENDUM)

High Temperature Operation (105°C)

This data sheet addendum is to be used in conjunction with the existing AT25DL161 data sheet. This document describes those parameters that differentiate from the data sheet. All other parameters meet the existing data sheet specifications. The Adesto AT25DL161 16 Mbit Serial Flash device operates at 105°C.

The ordering code suffix (CAN# Code) 'GA' must be used to ensure correct operation at this extended temperature range. Adesto will not modify and republish the current data sheet to reflect the CAN# 'GA' ordering code. The standard AT25DL161 data sheet is available at http://www.adestotech.com

1. Electrical Specifications

1.1 DC and AC Operating Range

Parameter	Value
Operating Temperature	-40°C to +105°C
Endurance (Maximum)	20,000 cycles
Retention (1)	20 years

1. Represents typical value based on equivalent operation derived from Arrhenius calculations under post cycling high temperature conditions; not indicative of performance at constant device operation life at 105°C.

1.2 DC Characteristics

Symbol	Parameter	Condition	Min	Typ	Max	Units
I_{SB}	Standby Current	$\overline{CS}$, $\overline{HOLD}$, $\overline{WP}$ = V_{IH}		30	45 (1)	µA

Symbol	Parameter	Condition	Min	Typ	Max	Units
I_{CC1}	Active Current, Read Operation	f = 100 MHz, I_{OUT} = 0 mA, $\overline{CS}$ = V_{IL}, VCC = Max		16	22	mA
		f = 85 MHz, I_{OUT} = 0 mA, $\overline{CS}$ = V_{IL}, VCC = Max		15	22	mA
		f = 66 MHz, I_{OUT} = 0 mA, $\overline{CS}$ = V_{IL}, VCC = Max		15	20	mA
		f = 50 MHz, I_{OUT} = 0 mA, $\overline{CS}$ = V_{IL}, VCC = Max		13	18	mA
		f = 33 MHz, I_{OUT} = 0 mA, $\overline{CS}$ = V_{IL}, VCC = Max		13	17	mA
		f = 20 MHz, I_{OUT} = 0 mA, $\overline{CS}$ = V_{IL}, VCC = Max		11	16	mA

1. Industrial temperature limit is 35µA.

1.3 AC Characteristics

Symbol	Parameter	Condition	1.65V to 1.95V			Units
			Min	Typ	Max	
t_V	Output Valid Time				6	ns

2. Ordering Code

2.1 Ordering Code Detail

Ordering Code [1]	Package	Operating Voltage	Max. Freq. (MHz)	Operation Range
AT25DL161-SSHNGA-T	8S1	1.65V to 1.95V	100 MHz	Extended (-40°C to +105°C)
AT25DL161-SSHNGA-B				

1. The shipping carrier option code is not marked on the devices. T = tape, B = bulk.

Package Type	
8S1	8-lead, 0.150" Wide, Plastic Gull Wing Small Outline Package (JEDEC SOIC)

3. Revision History

Revision Level – Release Date	History
A – May 2018	Initial release.

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