AT25DF011

1-Mbit, 1.7V-3.6V Minimum SPI Serial Flash Memory

DATASHEET (ADDENDUM)

High Temperature Operation (125°C)

This data sheet addendum is to be used in conjunction with the existing AT25DF011 datasheet specifications. The Adesto AT25DF011 1Mbit Serial Flash devices will operate @ 125°C with the following datasheet caveats. All other parameters will meet the existing datasheet specifications.

The ordering code suffix (CAN# Code) 'HR' or 'HT' must be used to ensure correct operation at this extended temperature range. Adesto will not modify and republish the current datasheet to reflect the CAN# ordering code or the above caveats.The standard AT25DF011 datasheet is available at http://www.adestotech.com.

1. Electrical Specifications

1.1 DC and AC Operating Range

		AT25DF011-xxxHR
Operating Temperature		-40°C to +125°C
Endurance (Maximum)		20,000 Cycles

1.2 DC, AC, Program and Erase Characteristics

Symbol	Parameter	1.7V to 3.6V			2.3V to 3.6V			Units
		Min	Typ	Max	Min	Typ	Max	
I_{DPD}	Deep Power-Down Current		5	40		8.5	40	µA
I_{SB}	Standby Current		25	60		25	60	µA
I_{CC3}	Active Current, Program Operation		12	18		12	18	mA
f_{RDLF}	Maximum Clock Frequency for 03h			25			25	MHz
t_{PP}	Page Program Time (256 Bytes)		1.8	7		1.8	5	ms
t_{PE}	Page Erase Time		8	25		7	25	ms
t_{BLKE}	Block Erase Time (4K)		50	120		50	120	ms
	Block Erase Time (32K)		360	900		300	700	ms
t_{CHPE}	Chip Erase Time		1400	3600		1200	2500	ms
t_{BP}	Byte Program Time		12			12		µs
t_{CSH}	Chip Select High Time	40			25			ns

2. Ordering Code

2.1 Green Package Options (Pb/Halide-free/RoHS Compliant)

Ordering Code [1]	Package	Operating Voltage	Max. Freq. (MHz)	Operation Range
AT25DF011-SSHNHR-T	8S1	1.7V to 3.6V	104MHz	Extended (-40°C to +125°C)
AT25DF011-SSHNHR-B				
AT25DF011-XMHNHR-T	8X			
AT25DF011-XMHNHR-B				
AT25DF011-MAHNHR-T	8MA3			
AT25DF011-DWFHT [2]	DWF			

1. The shipping carrier option code is not marked on the devices.
2. Contact Adesto for mechanical drawing or Die Sales information.

Package Type	
8S1	8-lead, 0.150" Wide, Plastic Gull Wing Small Outline Package (JEDEC SOIC)
8X	8-lead, Thin Shrink Small Outline Package
8MA3	8-pad, 2 x 3 x 0.6mm, Thermally Enhanced Plastic Ultra Thin Dual Flat No Lead Package (UDFN)
DWF	Die in Wafer Form

3. Revision History

Revision Level – Release Date	History
A - September 2014	Initial release.
B - October 2014	Updated AC and DC specifications.
C - January 2015	Added DFN and wafer form ordering codes. Updated Vcc range.
D - November 2015	Removed preliminary package note. Corrected units specification for I_{cc3} and $t_{PE.}$

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