



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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DATASHEET (ADDENDUM)
High Temperature Operation (125°C)

This data sheet addendum is to be used in conjunction with the existing AT25DF041B datasheet specifications. The Adesto AT25DF041B 4Mbit 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 [AT25DF041B datasheet](http://www.adestotech.com) is available at <http://www.adestotech.com>.

1. Electrical Specifications
1.1 DC and AC Operating Range

		AT25DF041B-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 _{UDPD}	Ultra Deep Power-Down Current		.2	1		.3	1	μA
I _{DPD}	Deep Power-Down Current		4.5	40		5	40	μA
I _{SB}	Standby Current		25	65		25	65	μA
f _{SCK}	Maximum Clock Frequency for All Operation (including 0Bh Opcode)			85			85	MHz
f _{RDLF}	Maximum Clock Frequency for 03h			25			25	MHz
f _{RDDO}	Maximum Clock Frequency for 3Bh Opcode			40			40	MHz
t _{CSH}	Minimum CS - High Time	40				25		ns
t _{PP}	Page Program Time (256 Bytes)		2	6		2	4	ms
t _{BLKE}	Block Erase Time (4K)		45	100		45	100	ms
	Block Erase Time (32K)		250	800		250	500	ms
	Block Erase Time (64K)		450	1700		450	1000	ms
t _{CHPE}	Chip Erase Time		3.6	12		3.6	6.8	s

2. Ordering Code

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

Ordering Code ⁽¹⁾	Package	Operating Voltage	Max. Freq. (MHz)	Operation Range
AT25DF041B-SSHNHR-T	8S1	1.7V to 3.6V	85MHz	Extended (-40°C to +125°C)
AT25DF041B-SSHNHR-B				
AT25DF041B-XMHNHR-T	8X			
AT25DF041B-XMHNHR-B				
AT25DF041B-MAHNHR-T	8MA3			
AT25DF041B-DWFHT ⁽²⁾	DWF			
AT25DF041B-UUNHR-T ⁽³⁾	8-WLCSP			

1. The shipping carrier option code is not marked on the devices.
2. Contact Adesto for mechanical drawing or Die Sales information.
3. Contact Adesto for WLCSP availability and lead time. Handle product in accordance with UV and ESD precautions.

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
8-WLCSP	8-ball, 3 x 2 x 3mm Ball Matrix, 0.35mm Z-Height

3. Revision History

Revision Level – Release Date	History
A – January 2015	Initial release.
B – November 2015	Added WLCSP package. Corrected units specification for I_{UDP} and t_{CSH} . Removed preliminary package note.



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