DATASHEET (ADDENDUM)

High Temperature Operation (125°C)

This data sheet addendum is to be used in conjunction with the existing AT25XE041B datasheet specifications. The Adesto AT25XE041B 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 AT25XE041B datasheet is available at http://www.adestotech.com.

1.   Electrical Specifications

1.1   DC and AC Operating Range

	AT25XE041B-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	.6		.3	.6	
I_{DPD}	Deep Power-Down Current		4.5	40		5	40	µA
I_{SB}	Standby Current		25	65		25	65	µA
I_{CC3} [1][2]	Active Current, Program Operation		9	11		9	11	mA
I_{CC4} [1][2]	Active Current, Erase Operation		8	10		8	10	mA
f_{RDLF}	Maximum Clock Frequency for 03h			25			25	MHz
t_{PP}	Page Program Time (256 Bytes)		1.85	3.75		1.85	3.75	ms
t_{BP}	Byte Program Time		12			12		µs
t_{PE}	Page Erase Time		6	20		6	20	ms
t_{BLKE}	Block Erase Time (4K)		45	75		45	75	ms
	Block Erase Time (32K)		360	550		360	550	ms
	Block Erase Time (64K)		720	1100		720	1100	ms
t_{CHPE}	Chip Erase Time		5.5	7.6		5.5	7.6	s

1. Typical values measured at 1.8V @ 25°C for the 1.7V to 3.6V range.
2. Typical values measured at 3.0V @ 25°C for the 2.3V to 3.6V range.

2.   Ordering Code

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

Ordering Code [1]	Package	Operating Voltage	Max. Freq. (MHz)	Operation Range
AT25XE041B-SSHNHR-T	8S1	1.7V to 3.6V	85MHz	Extended (-40°C to +125°C)
AT25XE041B-SSHNHR-B	8S1			
AT25XE041B-MHNHR-T	8MA1			
AT25XE041B-MHNHR-Y	8MA1			

1. The shipping carrier option code is not marked on the devices.

Package Type	
8S1	8-lead, 0.150" Wide, Plastic Gull Wing Small Outline Package (JEDEC SOIC)
8MA1	8-pad, 5 x 6 x 0.6mm, Thermally Enhanced Plastic Ultra Thin Dual Flat No-lead (UDFN)

3.   Revision History

Revision Level – Release Date	History
A – June 2015	Initial release.

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