



**Silicon Storage Technology, Inc.**

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# **NOR Flash Cross Reference Guide**

**(1.8V, 3V, 5V)**

[www.SST.com](http://www.SST.com)

## Comparison Guide

Company	Spancion		SST	Spancion		SST		Spancion	SST
	AM29F	AM29F	SST39SF	S29AL	S29GL	SST39VF	SST38VF	S29AS	SST39WF
<b>Density</b>	1 ~ 32 Mb	2 ~ 16 Mb	1 ~ 4 Mb	4 ~ 32 Mb	16 Mb ~ 1Gb	1 ~ 64 Mb	64 Mb	8 ~ 16 Mb	4 ~ 16 Mb
<b>1.8V</b>								•	•
<b>3V</b>				•	•	•	•		
<b>5V</b>	•	•	•						
<b>x8 *</b>	•		•	•	•	•			
<b>x16</b>		•		•	•	•	•	•	•
<b>Page Mode</b>					•		•		
<b>Uniform Sector</b>	•		•		•	•	•		•
<b>Top/Bottom Boot</b>	•	•		•	•	•	•	•	•
<b>Industrial Temp</b>	•	•	•	•	•	•	•	•	•
<b>PDIP</b>	•		•			•			
<b>PLCC</b>	•		•			•			
<b>TSOP</b>	•	•	•	•	•	•	•	•	
<b>BGA (fine-pitch)</b>				•	•	•	•		•
<b>WFBGA</b>						•			•
<b>XFLGA</b>						•			•

\* x8 3V product offered only in 1Mb, 2Mb, 4Mb and 16Mb

Refer to following pages for other legacy devices and details, such as AM29LV and AM29SL

Note: Datasheets with detailed features and specifications are available at:

<http://www.sst.com/products/datasheets.xhtml>

## Cross Reference Table

Parallel Flash		Spanion			SST		
Voltage	Density (Mb)	Part Number	x8 or x16	Architecture	Recommended SST Device	Packages Available	Architecture
1.8V	4	Am29SL400C	x16	Boot	SST39WF400A	48-CSP	Uniform
		Am29SL400C	x16	Boot	SST39WF400B	48-TFBGA 48-WFBGA 48-XFLGA	Uniform
		Am29SL400D	x16	Boot	SST39WF400A	48-CSP	Uniform
		Am29SL400D	x16	Boot	SST39WF400B	48-TFBGA 48-WFBGA 48-XFLGA	Uniform
	8	Am29SL800D	x16	Boot	SST39WF800B	48-TFBGA 48-WFBGA 48-XFLGA	Uniform
		MBM29SL800BE/TE	x16	Boot	SST39WF800B	48-TFBGA 48-WFBGA 48-XFLGA	Uniform
		S29AS008J	x16	Boot	SST39WF800B	48-TFBGA 48-WFBGA 48-XFLGA	Uniform

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Parallel Flash		Spanion			SST		
Voltage	Density (Mb)	Part Number	x8 or x16	Architecture	Recommended SST Device	Packages Available	Architecture
1.8V	16	Am29SL160C	x16	Boot	SST39WF160x, x = 1 or 2	48-TFBGA 48-WFBGA	Boot
		MBM29DS16xTE/BE	x16	Boot	SST39WF160x, x = 1 or 2	48-TFBGA 48-WFBGA	Boot
		S29AS016J	x16	Boot	SST39WF160x, x = 1 or 2	48-TFBGA 48-WFBGA	Boot
3V	4	Am29LV040B	x8	Uniform	SST39VF040	32-PLCC 32-TSOP 48-TFBGA	Uniform
		S29AL004D	x16	Boot	SST39VF400A	48-TSOP 48-TFBGA 48-WFBGA 48-XFLGA	Uniform
		S29AL004D	x8	Boot	SST39VF040	32-PLCC 32-TSOP 48-TFBGA	Uniform
	8	Am29DL800B	x16	Simultaneous R/W, (1 Mb + 7 Mb bank split)	SST39VF800A	48-TSOP 48-TFBGA 48-WFBGA 48-XFLGA	Uniform, no Simultaneous R/W
		S29AL008D	x16	Boot	SST39VF800A	48-TSOP 48-TFBGA 48-WFBGA 48-XFLGA	Uniform
		S29AL008J	x16	Boot	SST39VF800A	48-TSOP 48-TFBGA 48-WFBGA 48-XFLGA	Uniform

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Parallel Flash		Spanion			SST		
Voltage	Density (Mb)	Part Number	x8 or x16	Architecture	Recommended SST Device	Packages Available	Architecture
3V	16	Am29DL161D	x8/x16	Simultaneous R/W, (0.5 Mb + 15.5 Mb bank split), Boot	SST36VF160xG, x = 1 or 2	48-TFBGA 48-TSOP 56-LFBGA	Simultaneous R/W, (4 Mb + 12 Mb bank split), Boot
		Am29DL162D	x8/x16	Simultaneous R/W, (2 Mb + 14 Mb bank split), Boot	SST36VF160xG, x = 1 or 2	48-TFBGA 48-TSOP 56-LFBGA	Simultaneous R/W, (4 Mb + 12 Mb bank split), Boot
		Am29DL163D	x8/x16	Simultaneous R/W, (4 Mb + 12 Mb bank split), Boot	SST36VF160xG, x = 1 or 2	48-TFBGA 48-TSOP 56-LFBGA	Simultaneous R/W, (4 Mb + 12 Mb bank split), Boot
		Am29DL164D	x8/x16	Simultaneous R/W, (8 Mb + 8 Mb bank split), Boot	SST36VF160xG, x = 1 or 2	48-TFBGA 48-TSOP 56-LFBGA	Simultaneous R/W, (4 Mb + 12 Mb bank split), Boot
		Am29LV160D	x16	Boot	SST39VF160xC, x = 1 or 2	48-TSOP 48-TFBGA	Boot
		Am29LV160D	x8	Boot	SST39VF168x, x = 1 or 2	48-TSOP 48-TFBGA	Boot
		S29AL016D/J	x16	Boot	SST39VF160xC, x = 1 or 2	48-TSOP 48-TFBGA	Boot
		S29AL016D/J	x8	Boot	SST39VF168x, x = 1 or 2	48-TSOP 48-TFBGA	Boot

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Parallel Flash		Spanion			SST		
Voltage	Density (Mb)	Part Number	x8 or x16	Architecture	Recommended SST Device	Packages Available	Architecture
3V	32	Am29DL322D	x8/x16	Simultaneous R/W, (4 Mb + 28 Mb bank split), Boot	SST36VF320x, x = 3 or 4	48-TSOP 48-TFBGA	Simultaneous R/W, (8 Mb + 24 Mb bank split), Boot
		Am29DL323D	x8/x16	Simultaneous R/W, (8 Mb + 24 Mb bank split), Boot	SST36VF320x, x = 3 or 4	48-TSOP 48-TFBGA	Simultaneous R/W, (8 Mb + 24 Mb bank split), Boot
		Am29DL324D	x8/x16	Simultaneous R/W, (16 Mb + 16 Mb bank split), Boot	SST36VF320x, x = 3 or 4	48-TSOP 48-TFBGA	Simultaneous R/W, (8 Mb + 24 Mb bank split), Boot
		S29AL032D	x16	Boot	SST39VF320xB, x = 1 or 2	48-TSOP 48-TFBGA	Boot
		S29AL032D	x8	Boot	SST36VF320x, x = 3 or 4	48-TSOP 48-TFBGA	Simultaneous R/W, (8 Mb + 24 Mb bank split), Boot
		S29GL032A/M/N	x16	Boot	SST39VF320xB, x = 1 or 2	48-TSOP 48-TFBGA	Boot
		S29GL032A/M/N	x8	Boot	SST36VF320x, x = 3 or 4	48-TSOP 48-TFBGA	Simultaneous R/W, (8 Mb + 24 Mb bank split), Boot
		S29JL032H	x8/x16	Simultaneous R/W (Dual or Multi Bank), Boot	SST36VF320x, x = 3 or 4	48-TSOP 48-TFBGA	Simultaneous R/W, (8 Mb + 24 Mb bank split), Boot

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Parallel Flash		Spanion			SST		
Voltage	Density (Mb)	Part Number	x8 or x16	Architecture	Recommended SST Device	Packages Available	Architecture
3V	64	Am29DL640D	x16	Simultaneous R/W (Dual or Multi Bank), Boot	SST38VF640x, x = 1, 2, 3 or 4	48-TSOP 48-TFBGA	Boot, no Simultaneous R/W
		Am29LV065D	x16	Boot	SST38VF640x, x = 1, 2, 3 or 4	48-TSOP 48-TFBGA	Boot
		Am29LV640D	x16	Boot	SST38VF640x, x = 1, 2, 3 or 4	48-TSOP 48-TFBGA	Boot
		Am29LV641D	x16	Boot	SST38VF640x, x = 1, 2, 3 or 4	48-TSOP 48-TFBGA	Boot
		MBM29LV650UE	x16	Boot	SST38VF640x, x = 1, 2, 3 or 4	48-TSOP 48-TFBGA	Boot
		MBM29LV651UE	x16	Boot	SST38VF640x, x = 1, 2, 3 or 4	48-TSOP 48-TFBGA	Boot
		MBM29LV652UE	x16	Boot	SST38VF640x, x = 1, 2, 3 or 4	48-TSOP 48-TFBGA	Boot
		S29GL064A/M/N	x16	Boot	SST38VF640x, x = 1, 2, 3 or 4	48-TSOP 48-TFBGA	Boot
		S29JL064H	x16	Simultaneous R/W (Dual or Multi Bank), Boot	SST38VF640x, x = 1, 2, 3 or 4	48-TSOP 48-TFBGA	Boot, no Simultaneous R/W

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Parallel Flash		Spanion			SST		
Voltage	Density (Mb)	Part Number	x8 or x16	Architecture	Recommended SST Device	Packages Available	Architecture
5V	1	Am29F010B	x8	Uniform	SST39SF010A	32-PLCC 32-TSOP 32-PDIP	Uniform
		Am29F002B	x8	Boot	SST39SF020A	32-PLCC 32-TSOP 32-PDIP	Uniform
	2	Am29F002NB	x8	Boot	SST39SF020A	32-PLCC 32-TSOP 32-PDIP	Uniform
		Am29F200B	x8	Boot	SST39SF020A	32-PLCC 32-TSOP 32-PDIP	Uniform
		MBM29F002BC/TC	x8	Boot	SST39SF020A	32-PLCC 32-TSOP 32-PDIP	Uniform
		MBM29F200BC/TC	x8	Boot	SST39SF020A	32-PLCC 32-TSOP 32-PDIP	Uniform
	4	Am29F040B	x8	Uniform	SST39SF040	32-PLCC 32-TSOP 32-PDIP	Uniform
		Am29F400B	x8	Boot	SST39SF040	32-PLCC 32-TSOP 32-PDIP	Uniform
		MBM29F040C	x8	Uniform	SST39SF040	32-PLCC 32-TSOP 32-PDIP	Uniform
		MBM29F400BC/TC	x8	Boot	SST39SF040	32-PLCC 32-TSOP 32-PDIP	Uniform

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Serial Flash		Spanion			SST		
Voltage	Density (Mb)	Part Number	x8 or x16	Architecture	Recommended SST Device	Packages Available	Architecture
3V	4	S25FL040A	SPI	Boot	SST25VF040B	8-SOIC 8-WSON 8-CSP	AAI programming instead of Page programming; Power-up memory protected
		S25FL004A	SPI	Uniform	SST25VF040B	8-SOIC 8-WSON 8-CSP	AAI programming instead of Page programming; Power-up memory protected
	8	S25FL008A	SPI	Uniform	SST25VF080B	8-SOIC 8-WSON 16-CSP	AAI programming instead of Page programming; Power-up memory protected
	16	S25FL016A	SPI	Uniform	SST25VF016B	8-SOIC 8-WSON 16-CSP	AAI programming instead of Page programming; Power-up memory protected
	32	S25FL032A	SPI	Uniform	SST25VF032B	8-SOIC 16-SOIC	AAI programming instead of Page programming; Power-up memory protected
	64	S25FL064A	SPI	Uniform	SST25VF064C	16-SOIC	Additional feature Dual bit, Page Programming

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# ORDERING INFORMATION

Parallel Flash Example \*

## SST 39VF 6401 B70 4I EKE

### DEVICE:

39WF: 1.8V  
39VF: 2.7-3.6V  
39LF: 3.0-3.6V  
39SF: 5V

### DENSITY:

x8		x16	
010: 1Mb			
020: 2Mb	200: 2Mb		
040: 4Mb	400: 4Mb		
	800: 8Mb		
168: 16Mb	160: 16Mb		
	320: 32Mb		
	640: 64Mb		

### HARDWARE BLOCK PROTECTION:

1: Bottom Boot Block (32KWord)  
2: Top Boot Block (32KWord)  
3: Bottom Boot Block (8KWord)  
4: Top Boot Block (8Kword)  
Blank: Uniform Sector

### DEVICE VERSION

### MODIFIER:

E: RoHS Compliant Lead Free

### TEMPERATURE RANGE:

C: Commercial (0°C to +70°C)  
I: Industrial (-40°C to +85°C)

### MINIMUM ENDURANCE:

4: 10,000 cycles  
5: 100,000 cycles

### SPEED:

45: 45ns  
55: 55ns  
70: 70ns  
90: 90ns

### PACKAGE TYPE:

EI: TSOP-32 (10mmX20mm)  
EK: TSOP-48 (12mmX20mm)  
WH: TSOP-32 (8mmX14mm)  
NH: PLCC-32 (13mmX15mm)  
PH: PDIP-32 (42mmX16mm)  
B3K: TFBGA-48 (0.8mm pitch, 6mmX8mm)  
B1K: TFBGA-48 (0.8mm pitch, 8mmX10mm)  
M1Q: WFBGA-48 (0.5mm pitch, 4mmX6mm)  
MBQ: WFBGA-48 (0.5mm pitch, 5mmX6mm)  
Y1Q: WFBGA-48 (0.5mm pitch, 4mmX6mm)  
MM: WFBGA-34 (0.5mm pitch, 4mmX6mm)  
YM: WFBGA-34 (0.5mm pitch, 4mmX6mm)  
C1Q: XFLGA-48 (0.5mm pitch, 4mmX6mm)  
C2Q: XFLGA-48 (0.5mm pitch, 5mmX6mm)  
D1Q: XFLGA-48 (0.5mm pitch, 4mmX6mm)  
L1P: LFBGA-56 (.8mm pitch, 8mmX10mm)

\* This list is inexhaustive.  
Contact SST to find the device to meet your needs.

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