FLASH MEMORY ICS

SERIAL NOR FLASH MEMORY DEVICES

RoHS Compliant Available

SPANSION®

FEATURES

- Fast Page Access Time: 25ns
- 100,000 Erase Cycles (Typ.) per Sector
- 20 yr. Data Retention (Typ.)
- Hardware Reset Input Resets Device
- Support for CFI (Common Flash Interface)
- Single 3V Read/Program/Erase

NOR Flash is the ideal memory for code storage in embedded systems due to its fast random read performance. This performance also supports XIP (eXecute In Place) functionality which allows host controllers to execute code directly from the NOR Flash Memory without needing to first copy the code to a RAM. Higher levels of Serial NOR Memory performance have enabled XIP to be used on a wide variety of designs in many applications.

MPN is formed by a valid combination of the following:	
Device Family	S25FL Spansion Memory 3.0 Volt-Only, Serial Peripheral Interface (SPI) Flash Memory
Density	064 = 64 Mbit
Device Technology	P = 0.09 µm MirrorBit® Process Technology
Speed	0X = 104 MHz
Package Type	M = 16-pin SO package N = 8-contact WSON 6 x 8mm package B = 24-ball BGA 6 x 8 mm package, 1.00 mm pitch
Package Materials	F = Lead (Pb)-free H = Low-Halogen, Lead (Pb)-free
Temperature Range	I = Industrial (–40°C to + 85°C) V = Automotive In-cabin (–40°C to +105°C)
Model Number (Additional Ordering Options)	03 = 6 x 4 pin configuration BGA package 02 = 5 x 5 pin configuration BGA package 00 = 16-pin SO package / 8-contact WSON package
Packing Type	0 = Tray 1 = Tube 3 = 13" Tape and Reel

Mfg. Part No.	Packaging	Memory Size	Frequency	Supply Voltage	Stock No.	Price Each 1-9+
Serial, 4K x 256Byte						
● S25FL208K0RMFI011	SOIC-8	8Mbit	76MHz	2.7V-3.6V	**45W4068**	0.32
Serial, SPI						
● S25FL032P0XMFI001	SOIC-16	32Mbit	104MHz	2.7V-3.6V	**83P3960**	---
● S25FL032P0XMFI000	SOIC-16	32Mbit	104MHz	2.7V-3.6V	**83P3959**	---
● S25FL064P0XMFI001	SOIC-16	64Mbit	104MHz	2.7V-3.6V	**25R3528**	---
● S25FL064P0XMFI000	SOIC-16	64Mbit	104MHz	2.7V-3.6V	**32R8085**	---
● S25FL512SAGMFI011	SOIC-16	512Mbit	133MHz	2.7V-3.6V	**89T3260**	---
● S25FL032P0XMFI011	SOIC-8	32Mbit	104MHz	2.7V-3.6V	**83P3962**	---
● S25FL032P0XMFI010	SOIC-8	32Mbit	104MHz	2.7V-3.6V	**83P3961**	---
● S25FL064P0XNFI000	WSON-8	64Mbit	104MHz	2.7V-3.6V	**78R6724**	---
● S25FL128SAGNFI001	WSON-8	128Mbit	133MHz	2.7V-3.6V	**76T1520**	---
● S25FL256SAGNFI001	WSON-8	256Mbit	133MHz	2.7V-3.6V	**89T3244**	3.37
Serial, SPI, 16M x 8bit						
● S25FL128P0XNFI001	WSON-8	128Mbit	104MHz	2.7V-3.6V	**14N7118**	---
Serial, SPI, 8K x 256Byte						
● S25FL216K0PMFI011	SOIC-8	16Mbit	65MHz	2.7V-3.6V	**45W4074**	---
SPI						
● S25FL032P0XBHI020	BGA-24	32Mbit	104MHz	2.7V-3.6V	**89T0806**	---
● S25FL064P0XBHI020	BGA-24	64Mbit	104MHz	2.7V-3.6V	**63T2557**	---
● S25FL256SAGBHI200	BGA-24	256Mbit	133MHz	2.7V-3.6V	**76T1523**	---
● S25FL512SAGBHI310	BGA-24	512Mbit	133MHz	2.7V-3.6V	**89T3254**	5.79
● S25FL128SAGMFI011	SOIC-16	128Mbit	133MHz	2.7V-3.6V	**76T1518**	---
● S25FL256SAGMFI001	SOIC-16	256Mbit	133MHz	2.7V-3.6V	**76T1528**	---
● S25FL256SAGMFI011	SOIC-16	256Mbit	133MHz	2.7V-3.6V	**76T1530**	---
● S25FL512SDPMFI011	SOIC-16	512Mbit	66MHz	2.7V-3.6V	**89T3267**	---
● S25FL512SAGMFIG11	SOIC-16	512Mbit	133MHz	2.7V-3.6V	**89T3257**	4.56
● S25FL127SABNFI101	USON-8	127Mbit	108MHz	2.7V-3.6V	**97W1394**	2.75
● S25FL116K0XNFI011	WSON-8	16Mbit	108MHz	2.7V-3.6V	**18X3621**	---
● S25FL032P0XNFI011	WSON-8	32Mbit	104MHz	2.7V-3.6V	**78R6723**	---
● S25FL064P0XNFI001	WSON-8	64Mbit	104MHz	2.7V-3.6V	**78R6725**	---
● S25FL128SAGNFI011	WSON-8	128Mbit	133MHz	2.7V-3.6V	**76T1522**	---
SPI, 16M x 8bit						
● S25FL127SABBHIC00	BGA-24	128Mbit	108MHz	2.7V-3.6V	**96W2387**	---
● S25FL128SAGBHIA10	BGA-24	128Mbit	133MHz	2.7V-3.6V	**76T1508**	---
● S25FL129P0XMFI000	SOIC-16	128Mbit	104MHz	2.7V-3.6V	**55R7079**	---
● S25FL128SAGMFIG01	SOIC-16	128Mbit	133MHz	2.7V-3.6V	**08X5946**	---
● S25FL128SAGMFI000	SOIC-16	128Mbit	133MHz	2.7V-3.6V	**76T1515**	---
● S25FL128SAGMFI003	SOIC-16	128Mbit	133MHz	2.7V-3.6V	**45W4060**	1.78
● S25FL128SAGMFI010	SOIC-16	128Mbit	133MHz	2.7V-3.6V	**76T1517**	1.78
● S25FL128SAGMFIR01	SOIC-16	128Mbit	133MHz	2.7V-3.6V	**76T1514**	2.22
● S25FS128SAGMFI100	SOIC-8	128Mbit	133MHz	1.7V-2V	**20X1186**	---
● S25FS128SAGMFI101	SOIC-8	128Mbit	133MHz	1.7V-2V	**20X1187**	---
● S25FS128SDSNFI101	WSON-8	128Mbit	80MHz	1.7V-2V	**20X1189**	2.47
● S25FS128SAGNFI101	WSON-8	128Mbit	133MHz	1.7V-2V	**20X1188**	2.47
● S25FL128SAGNFI000	WSON-8	128Mbit	133MHz	2.7V-3.6V	**76T1519**	---

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SERIAL NOR FLASH MEMORY DEVICES (CONT.)

Mfg. Part No.	Packaging	Memory Size	Frequency	Supply Voltage	Stock No.	Price Each 1-9+
SPI, 1M x 8bit						
● S25FL208K0RMFI010	SOIC-8	8Mbit	76MHz	2.7V-3.6V	**45W4067**	---
SPI, 2M x 8bit						
● S25FL216K0PMFI010	SOIC-8	16Mbit	65MHz	2.7V-3.6V	**45W4073**	---
● S25FL116K0XMFI011	SOIC-8	16Mbit	108MHz	2.7V-3.6V	**17X9753**	---
SPI, 32M x 8bit						
● S25FL256SAGBHIC00	BGA-24	256Mbit	133MHz	2.7V-3.6V	**96W2390**	3.34
● S25FL256SAGBHID00	BGA-24	256Mbit	133MHz	2.7V-3.6V	**96W2391**	---
● S25FS256SDSMFI001	SOIC-16	256Mbit	80MHz	1.7V-2V	**20X1193**	3.35
● S70FL256P0XMFI001	SOIC-16	256Mbit	104MHz	2.7V-3.6V	**08X5977**	---
● S25FS256SAGMFI000	SOIC-16	256Mbit	133MHz	1.7V-2V	**20X1190**	3.35
● S25FS256SAGMFI001	SOIC-16	256Mbit	133MHz	1.7V-2V	**20X1191**	3.35
● S25FL256SAGMFIR01	SOIC-16	256Mbit	133MHz	2.7V-3.6V	**96W2392**	---
● S25FL256SAGMFI000	SOIC-16	256Mbit	133MHz	2.7V-3.6V	**76T1527**	---
● S25FL256SAGMFIG01	SOIC-16	256Mbit	133MHz	2.7V-3.6V	**89T3242**	---
● S25FS256SDSNFI001	WSON-16	256Mbit	80MHz	1.7V-2V	**20X1194**	3.35
● S25FS256SAGNFI001	WSON-16	256Mbit	133MHz	1.7V-2V	**20X1192**	3.35
● S25FL256SAGNFI000	WSON-8	256Mbit	133MHz	2.7V-3.6V	**89T3243**	2.23
SPI, 4M x 8bit						
● S25FL032P0XMFI013	SOIC-8	32Mbit	104MHz	2.7V-3.6V	**90R9322**	---
● S25FL132K0XMFI011	SOIC-8	32Mbit	108MHz	2.7V-3.6V	**18X3622**	---
SPI, 512K x 8bit						
● S25FL204K0TMFI040	SOIC-8	4Mbit	85MHz	2.7V-3.6V	**45W4064**	0.25
SPI, 64M x 8bit						
● S25FL512SAGBHIC10	BGA-24	512Mbit	133MHz	2.7V-3.6V	**89T3248**	8.15
SPI, 8M x 8bit						
● S25FL064P0XMFI003	SOIC-16	64Mbit	104MHz	2.7V-3.6V	**55R7078**	---
● S25FL164K0XMFI001	SOIC-16	64Mbit	108MHz	2.7V-3.6V	**08X5952**	---
● S25FL164K0XMFI011	SOIC-8	64Mbit	108MHz	2.7V-3.6V	**08X5955**	---
● S25FL164K0XNFI011	WSON-8	64Mbit	108MHz	2.7V-3.6V	**08X5958**	---

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PARALLEL NOR FLASH MEMORY DEVICES

RoHS Compliant Available

SPANSION®

FEATURES

- Single 3V power supply
- AL-J Family have Standard Interface
- JL-J / PL-J Family have Simultaneous read/write
- CFI (Common Flash Interface) compliant
- 1 million cycles endurance

S29AL model number:

- 01 = VCC = 2.7-3.6V, top boot sector device (CFI Support)
- 02 = VCC = 2.7-3.6V, bottom boot sector device (CFI Support)
- 03 = VCC = 2.7-3.6V, top boot sector device (No CFI Support)
- 04 = VCC = 2.7-3.6V, bottom boot sector device (No CFI Support)
- R1 = VCC = 3.0-3.6V, top boot sector device (CFI Support)
- R2 = VCC = 3.0-3.6V, bottom boot sector device (CFI Support)

S29JL model number:

- 01 = Top Boot Device, 4 Banks: 4/12/12/4 Mb
- 02 = Bottom Boot Device, 4 Banks: 4/12/12/4 Mb
- 21 = Top Boot Device, 2 Banks: 4/28 Mb
- 22 = Bottom Boot Device, 2 Banks: 4/28 Mb
- 31 = Top Boot Device, 2 Banks: 8/24 Mb
- 32 = Bottom Boot Device, 2 Banks: 8/24 Mb
- 41 = Top Boot Device, 2 Banks: 16/16 Mb
- 42 = Bottom Boot Device, 2 Banks: 16/16 Mb

S29PL- model number:

- 00 = 3.0V VIO, 80-ball 11 x 8 mm FBGA (VBG080)
- 01 = 1.8V VIO, 80-ball 11 x 8 mm FBGA (VBG080)
- 02 = 3.0V VIO, 64-ball 8 x 11.6 mm FBGA (VBH064)
- 12 = 3.0V VIO, 48-ball 8 x 6 mm FBGA (VBK048)
- 13 = 3.0V VIO, 56-pin 20 x 14 mm TSOP (TS056)
- 15 = 3.0V VIO, 56-ball 7 x 9 mm FBGA (VBU056)

Parallel NOR Flash Memory is designed to provide fast random access read performance and high bandwidth. NOR Flash family is optimized for the voltage, density, cost-per-bit, reliability, performance and scalability needs of a wide variety of embedded applications. Each device requires only a single 3.0V power supply for read and write functions and is entirely command set compatible with the JEDEC Flash standards.

Mfg. Part No.	Packaging	Memory Size	Supply Voltage	Stock No.	Price Each 1-9+
CFI, Parallel, 1M x 8bit / 512K x 16bit					
● S29AL008J70BFI020	BGA-48	8Mbit	2.7V-3.6V	**43P9762**	---
● S29AL008J70TFI010	TSOP-48	8Mbit	2.7V-3.6V	**43P9763**	---
● S29AL008J70TFI020	TSOP-48	8Mbit	2.7V-3.6V	**43P9764**	0.89
CFI, Parallel, 2M x 16bit					
● S29PL032J70BAI120	BGA-48	32Mbit	2.7V-3.6V	**42K8639**	---
● S29PL032J70BFI120	BGA-48	32Mbit	2.7V-3.6V	**44J2245**	2.94
CFI, Parallel, 2M x 8bit / 1M x 16bit					
● S29AL016J70BFI010	BGA-48	16Mbit	2.7V-3.6V	**12P0103**	---
● S29AL016J70TFI010	TSOP-48	16Mbit	2.7V-3.6V	**43P9766**	1.61
● S29AL016J70TFI020	TSOP-48	16Mbit	2.7V-3.6V	**43P9767**	2.17
CFI, Parallel, 4M x 16bit					
● S29PL064J70BFI120	BGA-48	64Mbit	2.7V-3.6V	**44J2247**	---
● S29PL064J70BAI120	BGA-48	64Mbit	2.7V-3.6V	**64J8411**	---
CFI, Parallel, 4M x 8bit / 2M x 16bit					
● S29JL032J70TFI320	TSOP-48	32Mbit	2.7V-3.6V	**90R9336**	---
● S29JL032J70TFI020	TSOP-48	32Mbit	2.7V-3.6V	**90R9332**	1.84

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