SPI Serial Flash

Product Description

SPI serial flash is small, low-power flash memory that features a Serial Peripheral Interface (SPI) and pin-for-pin compatibility with industry-standard SPI EEPROM devices. Its small footprint reduces ASIC controller pin count and packaging costs, saves board space and keeps system costs down. Offering lower power consumption and fewer wires than parallel flash, SPI serial flash is the ideal cost-efficient data transfer solution.

The ever growing SST 25 Series family provides ultra-low power serial flash for battery-operated applications, and includes an 8-bump XFBGA Z-Scale™ package for enhanced reliability and performance in an even smaller size.

Key Features

Serial Peripheral Interface: Mode 0 and Mode 3

Small Footprint
– 8-lead SOIC
– Low-profile 8-contact WSON
– 8-bump XFBGA Z-Scale

Operating Voltage
– 1.65V-1.95V
– 2.45V-2.75V
– 2.7V-3.6V

Clock Frequency
– Up to 80 MHz maximum

Flexible Erase Capability
– 4 KByte uniform Sector Erase
– 32/64 KByte Block Erase
– Chip Erase

AAI Programming
– Auto Address Increment for fast production throughput

Page Mode Programming (64 Mbit)

Proven Technology
– CMOS SuperFlash® technology boosts data retention and endurance, and reduces erase time and power consumption, making SST serial flash ideal for portable designs
– Endurance of 100,000 cycles typical
– Greater than 100 years data retention
– Fast Sector Erase or Block Erase time: 18 ms (typical)
– Byte Program time: 7 µs (typical)
– Active read current: 10 mA (typical)
– Standby current: 5 µA (typical) throughput

Low-power Serial Flash for Battery-operated Applications

– 1.65V-1.95V operating range
– 512 Kbit through 8 Mbit densities
– Ultra-low power consumption
– Active Read current less than 9 mA
– Standby current less than 2 µA

Applications

— *Blu-ray players*
— *HDTVs*
— *Bluetooth*
— *MP3 players*
— *DSL and cable modems*
— *Optical disk drives*
— *Hard disk drives*
— *Desktop PCs*
— *Notebook PCs*
— *Netbooks*
— *Printers*
— *Wireless LAN*
— *Set-top boxes*
— *LCD monitors*
— *Digital radios*
— *And many more*

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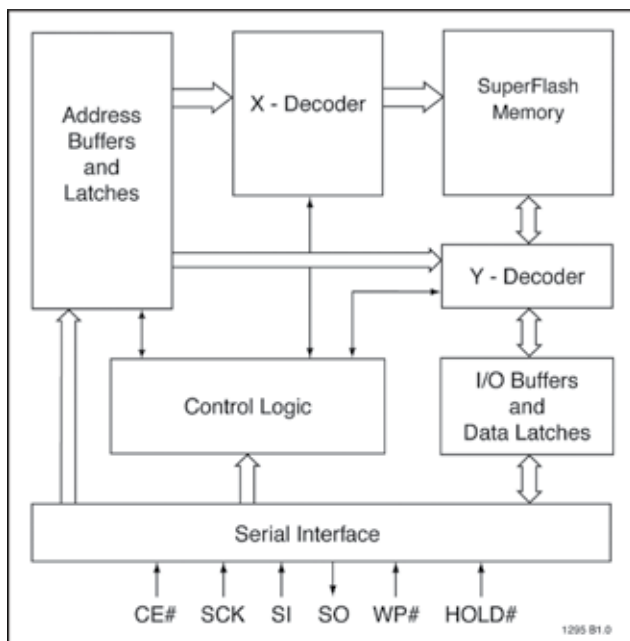Tel: (408) 735-9110
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www.SST.com
www.SuperFlash.com

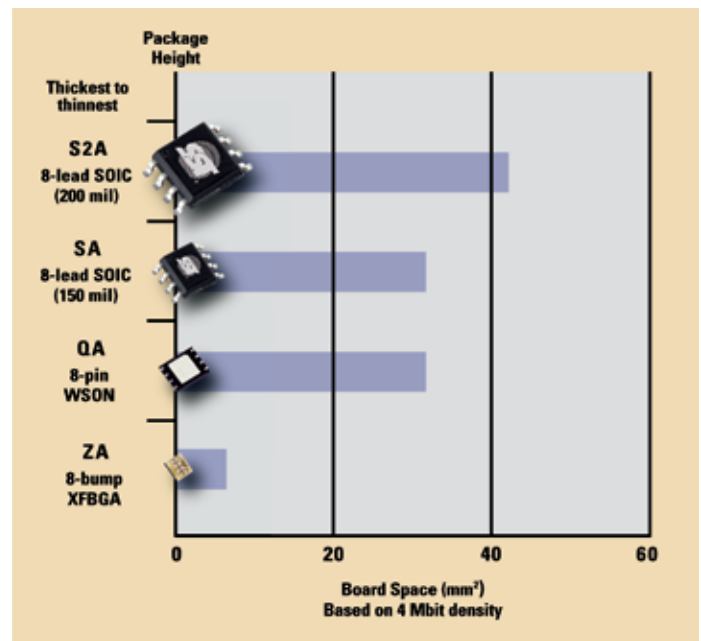| Serial Flash, 3.0V					
Device	Density	Interface	Voltage	Clock Speed (MHz)	Packages
SST25VF512A	512 Kb (64Kx8)	x1	2.7-3.6V	33	SOIC-8 (150mil), WSON-8 (5x6mm), XFBGA-8
SST25VF010A	1 Mb (128Kx8)	x1	2.7-3.6V	33	SOIC-8 (150mil), WSON-8 (5x6mm), XFBGA-8
SST25VF020B	2 Mb (256Kx8)	x1	2.7-3.6V*	80	SOIC-8 (150mil), WSON-8 (5x6mm), XFBGA-8
SST25VF040B	4 Mb (512Kx8)	x1	2.7-3.6V*	80	SOIC-8 (150mil), SOIC-8 (200mil), WSON-8 (5x6mm), XFBGA-8
SST25VF080B	8 Mb (1Mx8)	x1	2.7-3.6V*	80	SOIC-8 (200mil), WSON-8 (5x6mm), XFBGA-8
SST25VF016B	16 Mb (2Mx8)	x1	2.7-3.6V	80	SOIC-8 (200mil), WSON-8 (5x6mm)
SST25VF032B	32 Mb (4Mx8)	x1	2.7-3.6V	80	SOIC-8 (200mil), WSON-8 (5x6mm)
SST25VF064C	64 Mb (8Mx8)	x1, x2	2.7-3.6V	80	SOIC-16 (300mil), WSON-8 (6x8mm)

* 2.45V-2.75V operating voltage also available

Serial Flash, 1.8V					
Device	Density	Interface	Voltage	Clock Speed (MHz)	Packages
SST25WF512	512 Kb (64Kx8)	x1	1.65-1.95V	40	SOIC-8 (150mil)
SST25WF010	1 Mb (128Kx8)	x1	1.65-1.95V	40	SOIC-8 (150mil)
SST25WF020	2 Mb (256Kx8)	x1	1.65-1.95V	40	SOIC-8 (150mil), WSON-8
SST25WF040	4 Mb (512Kx8)	x1	1.65-1.95V	40	SOIC-8 (150mil), WSON-8
SST25WF080	8 Mb (1Mx8)	x1	1.65-1.95V	75	SOIC-8 (150mil), XFBGA-8

25 Series Block Diagram

SST Serial Flash Packages

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For more information please contact your local SST Sales Representative.
See the "Sales" page of www.SST.com for complete listings.

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