

S29JL032H Simultaneous Read/Write Flash Memory

32 Megabit (2 M x 16-Bit / 4 M x 8-Bit)

Spansion™ Overview

Spansion™, the Flash memory subsidiary of AMD and Fujitsu, is the world's leading manufacturer of NOR Flash Memory. Spansion is committed to delivering outstanding customer service and expert technical support, as well as providing the highest level of quality and reliability in its products. All Spansion production fabs are certified to the demanding ISO/TS16949:2002 global technical specification, ISO9001:2000 quality standards, and the ISO14001 environmental standard.

General Description

Spansion S29JL032H devices, manufactured using 130-nanometer, high-volume production Floating Gate technology, are standard interface devices featuring simultaneous read/write capability and high reliability. Several packages are available, offering the widest variety for all applications.

Target Applications

- Automotive
- Gaming Devices
- Industrial Equipment
- Wireless Devices
- Telecom/Networking
- Consumer Electronics

PERFORMANCE CHARACTERISTICS

ACCESS SPEED

Max. Access Time (ns)	55	60	70	90
Max. CE# Access Time (ns)	55	60	70	90
Max. OE# Access Time (ns)	25	25	30	35

CURRENT CONSUMPTION

Active Read (@ 5 MHz) (mA)	10
Program or Erase (mA)	15
Read While Program (mA)	21
Standby Mode (µA)	0.2

Note: Typical values shown.

PROGRAM & ERASE PERFORMANCE

Accelerated Byte or Word Program Time (µs)	4
Byte Program Time (µs)	4
Program Time (µs)	6
Sector Erase Time (sec)	0.4

Note: Typical values shown.

FEATURES AND BENEFITS

- **Based on Proven Floating Gate Technology**
- **Highest Performance Simultaneous Read/Write Flash at 32 Mb in the Industry**
 - Fastest word & chip programming time
- **High Performance Read**
 - Up to 55ns Random Access, up to 4 µs Word Program (accelerated)
- **Highest Quality and Reliability in the Industry**

DISTINCTIVE CHARACTERISTICS

ARCHITECTURAL

- Established 130nm Floating Gate technology
- Single 3.0V power supply
- Greatest number of bank split architectures offered
 - 4 banks: 4 / 12 / 12 / 4 Mb
 - 2 banks: 4 / 28 Mb
 - 2 banks: 8 / 24 Mb
 - 2 banks: 16 / 16 Mb
- Industrial operating temperature range -40 °C to +85 °C
- JEDEC pinout and software standards compliant

SOFTWARE AND HARDWARE

- Program and Erase Suspend and Resume
- CFI (Common Flash Interface) compliant
- ACC pin accelerates factory programming

SECURITY

- Sector Protection/Unprotection
- WP# protects top and bottom sectors
- 128-word/256-byte one-time programmable Secured Silicon Sector

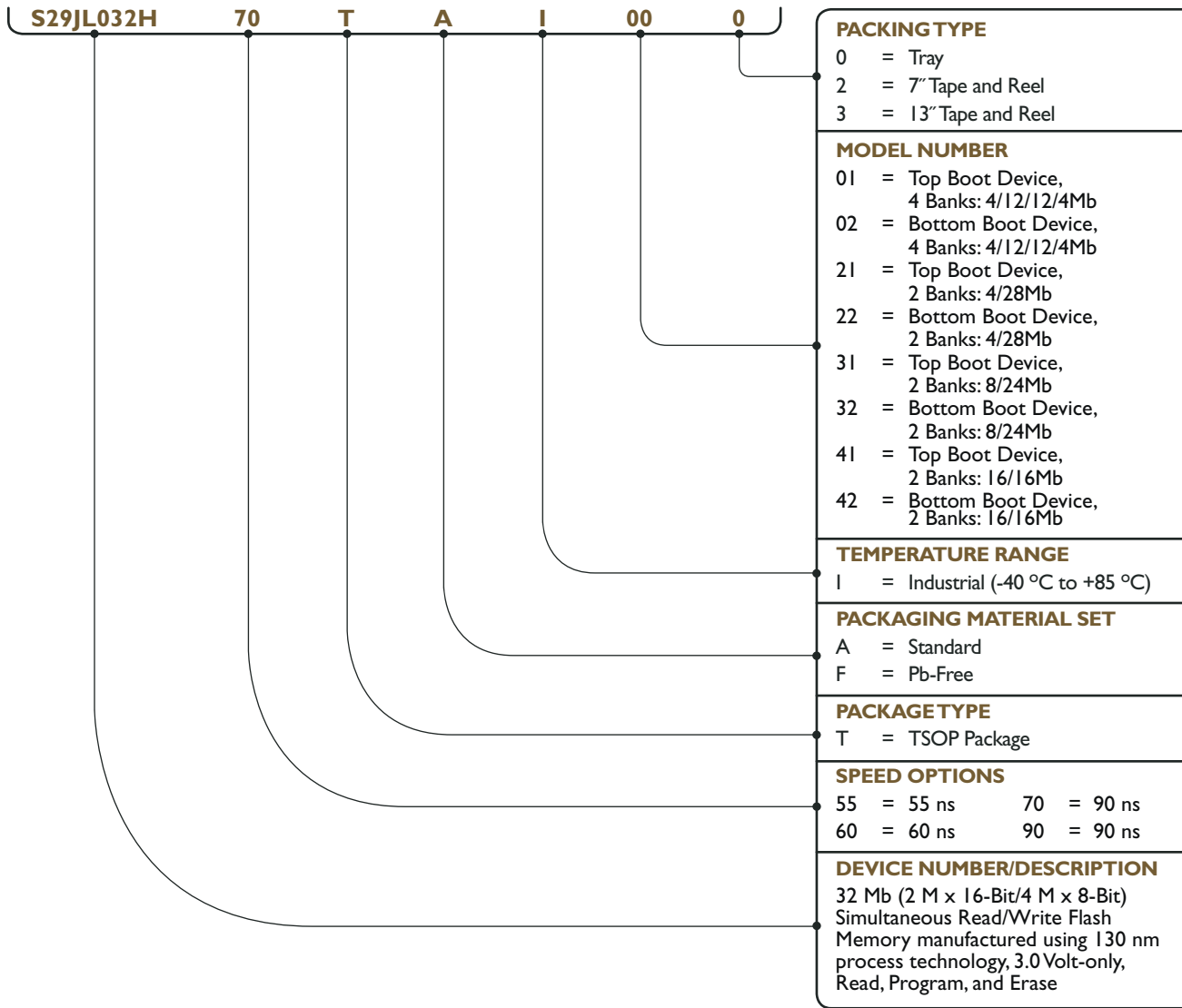
QUALITY AND RELIABILITY

- Cycling endurance: 1,000,000 cycles per sector typical
- Data retention: 20 years typical

PACKAGING

- 48-pin TSOP Package
- Standard and Pb-Free packages available

Ordering Information



AVAILABLE ORDERING PART NUMBERS FOR S29JL032H FLASH MEMORY

Device Number	Speed Option	Package & Material Temperature	Model Number	Packing Type	Package Description
S29JL032H	55 ² 60 ² 70 90	TAI, TFI	01	0, 2, 3 ¹	TS048 (TSOP)
			02		
			21		
			22		
			31		
			32		
			41		
			42		

PRODUCT SELECTION GUIDE³

Part Number for New Designs	Legacy Part Numbers (TSOP only)*
S29JL032H	Am29DL32xG
	Am29DL32xD
	MBM29DL3xT/BF

Notes:

- Type 0 is standard. Specify others as required: TSOPs can be packed in Types 0 and 3; BGAs in Types 0, 2, or 3.
- Consult your local Spansion representative for availability of the 55 ns and 60 ns speed options.
- Refer to related Spansion OPN map for feature mapping.

* For Fine-pitch BGA (FBGA) designs, Spansion recommends S29PL032J.