

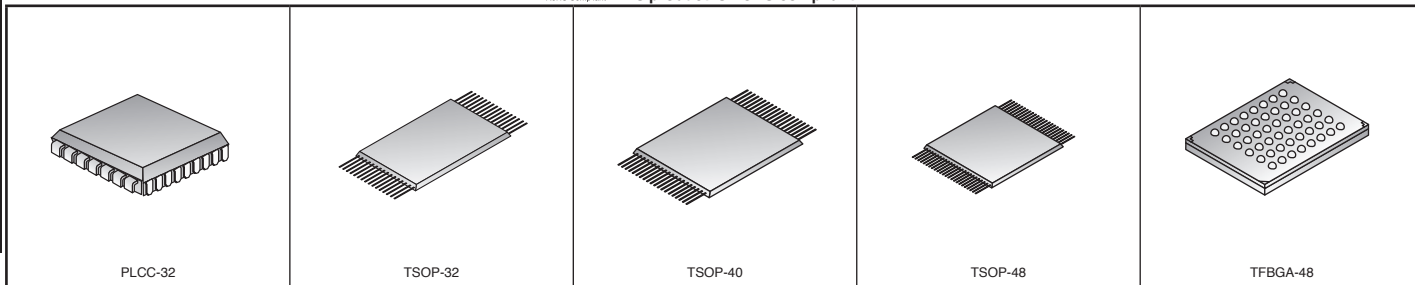
# MICROCHIP Parallel Flash Memory



RoHS Compliant This product is RoHS compliant.

Memory

Microchip



## 39 SERIES MPF (MULTI-PURPOSE FLASH) PARALLEL FLASH (CONT.)

◆ Surface Mount Device

The 39 Series MPF (Multi-Purpose Flash) are manufactured with Microchip's proprietary, high performance CMOS SuperFlash® technology. The split-gate cell design and thick oxide tunneling injector attain better reliability and manufacturability compared with alternate approaches. To protect against inadvertent write, they have on-chip hardware and Software Data Protection schemes. Designed, manufactured, and tested for a wide spectrum of applications, these devices are offered with a guaranteed typical endurance of 10,000 cycles. Data retention is rated at greater than 100 years. They are suited for applications that require convenient and economical updating of program, configuration, or data memory. For all system applications, they significantly improve performance and reliability, while lowering power consumption. They inherently use less energy during erase and program than alternative flash technologies. The total energy consumed is a function of the applied voltage, current, and time of application. Since for any given voltage range, the SuperFlash technology uses less current to program and has a shorter erase time, the total energy consumed during any Erase or Program operation is less than alternative flash technologies.

**Features:**

- 50% smaller than competition's 6mm x 8mm BGA packages
- Industry's smallest 1.8V packages for 8M-bit products
- Thinnest standard flash package in the industry
- Best total-cost solution for price sensitive, fast to market applications
- JEDEC approved packages
- For applications requiring high performance features such as set-top boxes, PDAs, digital cameras and networking equipment



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For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Microchip Part No.	Package	Density	Organization	Access Time (ns)	Chip Rewrite Time (Sec) (Typ)	Supply Voltage (V)	Operating Temperature (°C)	Price Each		
									1	25	100
◆ 804-39VF400A7CEKE	SST39VF400A-70-4C-EKE	TSOP-48	4M	256K x 16	70	4.0	2.7 to 3.6	0 to 70	2.05	1.52	1.42
◆ 804-39VF400A7CB3KE	SST39VF400A-70-4C-B3KE	TFBGA-48	4M	256K x 16	70	4.0	2.7 to 3.6	0 to 70	2.20	1.64	1.52
◆ 804-39VF400A7IEKE	SST39VF400A-70-4I-EKE	TSOP-48	4M	256K x 16	70	4.0	2.7 to 3.6	-40 to +85	2.05	1.52	1.42
◆ 804-39VF400B7CB3KE	SST39VF400B-70-4C-B3KE	TFBGA-48	4M	256K x 16	70	-----	1.65 to 1.95	0 to 70	2.77	2.06	1.92
◆ 804-39SF0407CNHE	SST39SF040-70-4C-NHE	PLCC-32	4M	512K x 8	70	8.0	4.5 to 5.5	0 to 70	2.31	1.72	1.60
◆ 804-39SF0407CWHE	SST39SF040-70-4C-WHE	TSOP-32	4M	512K x 8	70	8.0	4.5 to 5.5	0 to 70	2.49	1.86	1.73
◆ 804-39VF0407CNHE	SST39VF040-70-4C-NHE	PLCC-32	4M	512K x 8	70	8.0	2.7 to 3.6	0 to 70	2.10	1.56	1.45
◆ 804-39VF0407CWHE	SST39VF040-70-4C-WHE	TSOP-32	4M	512K x 8	70	8.0	2.7 to 3.6	0 to 70	2.29	1.70	1.59
◆ 804-39VF0407INHE	SST39VF040-70-4I-NHE	PLCC-32	4M	512K x 8	70	8.0	2.7 to 3.6	-40 to +85	2.10	1.56	1.45
◆ 804-39VF0407IWHE	SST39VF040-70-4I-WHE	TSOP-32	4M	512K x 8	70	8.0	2.7 to 3.6	-40 to +85	2.29	1.70	1.59
◆ 804-39VF400A7IB3KE	SST39VF400A-70-4I-B3KE	TFBGA-48	4M	512K x 8	70	4.0	2.7 to 3.6	-40 to +85	2.20	1.64	1.52
◆ 804-39LF800A55CEKE	SST39LF800A-55-4C-EKE	TSOP-48	8M	512K x 16	55	8.0	3.0 to 3.6	0 to 70	2.46	2.07	1.93
◆ 804-39LF800A55CB3KE	SST39LF800A-55-4C-B3KE	TFBGA-48	8M	512K x 16	55	8.0	3.0 to 3.6	0 to 70	2.56	2.21	2.06
◆ 804-39VF800A7CEKE	SST39VF800A-70-4C-EKE	TSOP-48	8M	512K x 16	70	8.0	2.7 to 3.6	0 to 70	2.32	1.73	1.61
◆ 804-39VF800A7IB3KE	SST39VF800A-70-4I-B3KE	TFBGA-48	8M	512K x 16	70	8.0	2.7 to 3.6	0 to 70	2.48	1.84	1.71
◆ 804-39VF800A7IEKE	SST39VF800A-70-4I-EKE	TSOP-48	8M	512K x 16	70	8.0	2.7 to 3.6	-40 to +85	2.32	1.73	1.61
◆ 804-39WF800B7CB3KE	SST39WF800B-70-4C-B3KE	TFBGA-48	8M	512K x 16	70	-----	1.65 to 1.95	0 to 70	2.74	2.04	1.90
◆ 804-39VF16017CEKE	SST39VF1601-70-4C-EKE	TSOP-48	16M	1M x 16	70	-----	2.7 to 3.6	0 to 70	3.37	2.68	2.55
◆ 804-39VF16027IEKE	SST39VF1602-70-4I-EKE	TSOP-48	16M	1M x 16	70	-----	2.7 to 3.6	-40 to +85	3.48	2.76	2.63
◆ 804-39VF16817CEKE	SST39VF1681-70-4C-EKE	TSOP-48	16M	2M x 8	70	-----	2.7 to 3.6	0 to 70	3.56	2.82	2.69
◆ 804-39VF16817CB3KE	SST39VF1681-70-4C-B3KE	TSOP-48	16M	2M x 8	70	-----	2.7 to 3.6	0 to 70	3.69	2.93	2.79
◆ 804-39VF32017CEKE	SST39VF3201-70-4C-EKE	TSOP-48	32M	2M x 16	70	-----	2.7 to 3.6	0 to 70	5.10	3.79	3.53
◆ 804-39VF32017CB3KE	SST39VF3201-70-4C-B3KE	TFBGA-48	32M	2M x 16	70	-----	2.7 to 3.6	0 to 70	5.25	3.90	3.64
◆ 804-39VF3201B7CEKE	SST39VF3201B-70-4C-EKE	TSOP-48	32M	2M x 16	70	-----	2.7 to 3.6	0 to 70	3.97	2.95	2.75
◆ 804-39VF32027CEKE	SST39VF3202-70-4C-EKE	TSOP-48	32M	2M x 16	70	-----	2.7 to 3.6	0 to 70	5.10	3.79	3.53
◆ 804-39VF3202B7CEKE	SST39VF3202B-70-4C-EKE	TSOP-48	32M	2M x 16	70	-----	2.7 to 3.6	0 to 70	3.97	2.95	2.75

## 38 SERIES ADVANCED MPF+ (MULTI-PURPOSE FLASH PLUS) PARALLEL FLASH

◆ Surface Mount Device

The 38 Series Advanced MPF+ (Multi-Purpose Flash Plus) is a family of high-performance, parallel flash memories that feature data protection capabilities as well as fast program, erase and read times. These high speed operations enable quick boot times and field updates, resulting in better end-user experiences. These capabilities also provide higher throughput in manufacturing lines that use in-system programming of the flash. The data protection features of the Advanced MPF+ family prevent unauthorized data changes, ensuring that content stored on the flash memory is secure. These are ideal for applications that need high performance or require integrity of data and services. Available in standard packages with compatible pinouts, this family of devices also offers the benefits of SuperFlash® technology; high performance, low power and reliability.

**Features:**

- Page Read
  - 25ns/word (max) page read access time
  - 4-Word page read buffer
- Write-Buffer Programming
  - 2.5µs/word (max) programming time (full buffer)
  - 16-Word write buffer
- Protection/Security
  - 128-bit unique ID
  - 256-Word user programmable SEC ID area
  - Individual block protection
  - Irreversible block lock
  - Boot-block options
- SuperFlash® Technology
  - Endurance, 100,000 cycles (minimum)
  - Greater than 100 years data retention
  - Fast Sector-Erase and Block-Erase time: 25ms (maximum)
  - Low Power



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For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Microchip Part No.	Package	Density	Organization	Access Time (ns)	Sector-Erase Time (ms) (Typ)	Supply Voltage (V)	Operating Temperature (°C)	Price Each		
									1	25	100
◆ 804-38VF64029CEKE	SST38VF6402-90-5C-EKE	TSOP-48	64M	4M x 16	90	18	2.7 to 3.6	0 to 70	7.11	5.65	5.38
◆ 804-38VF64039CEKE	SST38VF6403-90-5C-EKE	TSOP-48	64M	4M x 16	90	18	2.7 to 3.6	0 to 70	7.11	5.65	5.38

## 49 SERIES LPC (LOW PIN COUNT) FIRMWARE FLASH/FIRMWARE HUB

◆ Surface Mount Device

The 49 Series LPC (Low Pin Count) Firmware Flash/Firmware Hub is a family of flash memories designed for system code and data storage. It complies with the Intel LPC Interface specification supporting multi-byte Firmware Memory and single-byte LPC Memory cycle types. The low pin count interface allows ASIC host controllers to have more free pins resulting in lower overall system costs. These products are ideally suited for embedded systems and processor applications. Available in an array of package and density combinations, this family of devices also offers all the benefits of SuperFlash® technology; high performance, low power and reliability.

**Features:**

- Intel Support
  - Compliant with Intel low Pin Count (LPC) Interface specification 1.1
  - Compatible with Intel 82802 Firmware Hub (FWH) component
- High Bandwidth
  - Up to 33MHz operating frequency
  - Parallel Programming (PP) for fast production programming
  - Unique features for 16Mbit devices
  - 128-byte burst programming
  - Up to 15.6MB/s data transfer rate
  - Auto Address Increment (AAI)
- Protection Security
  - 256-bit secure ID space
  - Boot block operations
  - Hardware write protection
- SuperFlash® Technology
  - Endurance, 100,000 cycles (minimum)
  - Greater than 100 years data retention
  - Fast Sector-Erase and Block-Erase time: 25ms (maximum)
  - Low Power



RoHS Compliant

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Microchip Part No.	Package	Density	Organization	Frequency (MHz)	Program Time (µS) (Typ)	Supply Voltage (V)	Operating Temperature (°C)	Price Each		
									1	25	100
◆ 804-49LF080A3CNHE	SST49LF080A-33-4C-NHE	PLCC-32	8M	1M x 8	33	14	3.0 to 3.6	0 to 85	5.68	4.22	3.94
◆ 804-49LF080A3CWHE	SST49LF080A-33-4C-WHE	TSOP-32	8M	1M x 8	33	14	3.0 to 3.6	0 to 85	5.92	4.41	4.10
◆ 804-49LF016C3CNHE	SST49LF016C-33-4C-NHE	PLCC-32	16M	2M x 8	33	7	3.0 to 3.6	0 to 85	6.70	4.98	4.64
◆ 804-49LF016C3CWHE	SST49LF016C-33-4C-WHE	TSOP-32	16M	2M x 8	33	7	3.0 to 3.6	0 to 85	6.91	5.13	4.78
◆ 804-49LF016C3CEIE	SST49LF016C-33-4C-EIE	TSOP-40	16M	2M x 8	33	7	3.0 to 3.6	0 to 85	7.15	5.31	4.94
◆ 804-49LF160C3CNHE	SST49LF160C-33-4C-NHE	PLCC-32	16M	2M x 8	33	7	3.0 to 3.6	0 to 85	6.70	4.98	4.64