Product Catalog

Memory ICs

2025

ABLIC

MinebeaMitsumi Group
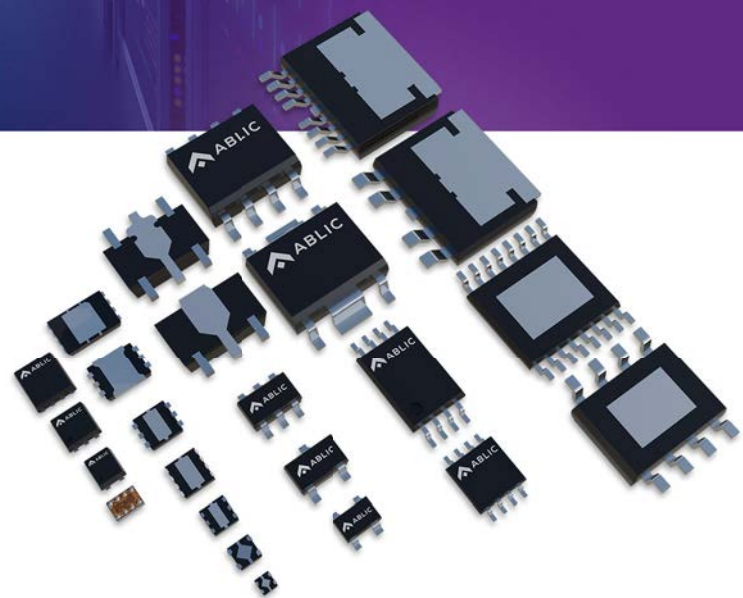
ABLIC Inc.

Table of Contents

Serial EEPROMs (SPI, I²C, Microwire)

Serial EEPROMs (SPI, I²C, Microwire) on ablic.com

Series Name	Interface	Density [bit]	Operating voltage (READ) min. [V]	Operating voltage (READ) max. [V]	Operating voltage (WRITE) min. [V]	Operating voltage (WRITE) max. [V]	Clock frequency max. [MHz]	Write time max. [ms]	Endurance	Data retention [years]	Operation temp. min. [°C]	Operation temp. max. [°C]	Package	Page
S-25C010A/020A/040A	SPI bus	1 K, 2 K, 4 K	1.6	5.5	1.7	5.5	5.0	4	1 million	100	-40	85	8-pin SOP, 8-pin TSSOP, TMSOP-8, SNT-8A	1
S-25C080A	SPI bus	8 K	1.6	5.5	1.7	5.5	5.0	4	1 million	100	-40	85	8-pin SOP, 8-pin TSSOP, TMSOP-8, SNT-8A, WLP-8H	2
S-25C160A	SPI bus	16K	1.6	5.5	1.7	5.5	5.0	5	1 million	100	-40	85	8-pin SOP, 8-pin TSSOP, TMSOP-8, WLP-8J	3
S-25C320A/640A	SPI bus	32K, 64K	1.6	5.5	1.7	5.5	5.0	5	1 million	100	-40	85	8-pin SOP, 8-pin TSSOP, TMSOP-8, SNT-8A	4
S-25C128A	SPI bus	128K	1.6	5.5	1.7	5.5	5.0	5	1 million	100	-40	85	8-pin SOP, 8-pin TSSOP	5
S-25C256A	SPI bus	256K	1.6	5.5	1.7	5.5	10.0	5	1 million	100	-40	85	8-pin SOP, 8-pin TSSOP	6
S-25C512A	SPI bus	512K	1.6	5.5	1.7	5.5	10.0	5	1 million	100	-40	85	8-pin SOP, 8-pin TSSOP	7
S-25CM01A	SPI bus	1024K	1.6	5.5	1.7	5.5	10.0	5	1 million	100	-40	85	8-pin SOP	8
S-24C02D/04D/08D/16D	2-wire (I²C)	2 K, 4 K, 8 K, 16K	1.7	5.5	1.7	5.5	1.0	5	1 million	100	-40	85	8-pin SOP, 8-pin TSSOP, TMSOP-8, SNT-8A, SOT-23-5, DFN-8(2030)	9
S-24C08C	2-wire (I²C)	8 K	1.6	5.5	1.7	5.5	0.4	5	1 million	100	-40	85	WLP-6J	10
S-24C16C	2-wire (I²C)	16K	1.6	5.5	1.7	5.5	0.4	5	1 million	100	-40	85	WLP-6J	11
S-24C32C/64C	2-wire (I²C)	32K, 64K	1.6	5.5	1.7	5.5	0.4	5	1 million	100	-40	85	8-pin SOP, 8-pin TSSOP, TMSOP-8, SNT-8A	12
S-24C128C	2-wire (I²C)	128K	1.6	5.5	1.7	5.5	0.4	5	1 million	100	-40	85	8-pin SOP, 8-pin TSSOP	13
S-24C256C	2-wire (I²C)	256K	1.6	5.5	1.7	5.5	1.0	5	1 million	100	-40	85	8-pin SOP, 8-pin TSSOP	14
S-24C512C	2-wire (I²C)	512K	1.6	5.5	1.7	5.5	1.0	5	1 million	100	-40	85	8-pin SOP, 8-pin TSSOP	15
S-24CM01C	2-wire (I²C)	1024K	1.6	5.5	1.7	5.5	1.0	5	1 million	100	-40	85	8-pin SOP	16
S-93C46C/56C/66C/76C/86C	3-wire (Microwire)	1 K, 2 K, 4 K, 8 K, 16K	1.6	5.5	1.8	5.5	2.0	4	1 million	100	-40	85	8-pin SOP, 8-pin TSSOP, TMSOP-8, SNT-8A	17

EEPROMs for DIMM (SPD)

EEPROMs for DIMM (SPD) on ablic.com

Series Name	Features	Interface	Standard	Operation temp. min. [°C]	Operation temp. max. [°C]	Package	Page
S-34TS04A	4-Kbit SPD EEPROM with temperature sensor for DDR4 DIMMs	I²C-bus with SMBus timeout	JEDEC Standard TSE2004B2	-20	125	DFN-8(2030)B	18
S-34HTS08AB	DDR5 SPD EEPROM with HUB built-in temperature sensor	I²C-bus/I3C-bus	JEDEC Standard SPD5118	-40	125	DFN-8(2030)B	19
S-34C04A	4-Kbit SPD EEPROM for DDR4 DIMMs	I²C-bus with SMBus timeout	JEDEC Standard EE1004-1	-20	125	DFN-8(2030)A	20

EEPROMs for SSD (VPD)

EEPROMs for SSD (VPD) on ablic.com

Series Name	Features	Interface	Operation voltage min. [V]	Operation temp. min. [°C]	Operation temp. max. [°C]	Package	Page
S-585AA	4-Kbit VPD EEPROM with SMBus ARP function and temperature sensor	SMBus / I²C-bus	1.7	-40	125	DFN-8(2030)B	21
S-34TS04L	4-Kbit VPD EEPROM with temperature sensor	SMBus / I²C-bus	1.7	-20	125	DFN-8(2030)B	22
S-34C04A	4-Kbit VPD EEPROM	SMBus / I²C-bus	1.7	-20	125	DFN-8(2030)A	23

S-25C010A/020A/040A

SPI SERIAL E^{2}PROM

The S-25C010A/020A/040A is a SPI serial E^{2}PROM which operate at high speed, with low current consumption and the wide range operation. The S-25C010A/020A/040A has the capacity of 1 K-bit, 2 K-bit, 4 K-bit and the organization of 128 words × 8-bit, 256 words × 8-bit, 512 words × 8-bit. Page write and sequential read are available.

■ Features

- Operating voltage range: Read   1.6 V to 5.5 V
                                                  Write   1.7 V to 5.5 V
- Operation frequency: 5.0 MHz (V$_{CC}$ = 2.5 V to 5.5 V)
- Write time: 4.0 ms max.
- SPI mode (0, 0) and (1, 1)
- Page write: 16 bytes / page
- Sequential read
- Write protect: Software, Hardware
  Protect area: 25%, 50%, 100%
- Monitors write to the memory by a status register
- Function to prevent malfunction by monitoring clock pulse
- Write protect function during the low power supply
- CMOS schmitt input ($\overline{CS}$, SCK, SI, $\overline{WP}$, $\overline{HOLD}$)
- Endurance: 10^6 cycles / word[*1] (Ta = +25°C)
- Data retention: 100 years (Ta = +25°C)
- Memory capacity: S-25C010A 1 K-bit
                                          S-25C020A 2 K-bit
                                          S-25C040A 4 K-bit
- Initial delivery state: FFh, BP1 = 0, BP0 = 0
- Operation temperature range: Ta = −40°C to +85°C
- Lead-free, Sn 100%, halogen-free[*2]

  *1. For each address (Word: 8-bit)
  *2. Refer to "■ Product Name Structure" for details.

■ Packages

- 8-Pin SOP (JEDEC)
- 8-Pin TSSOP
- TMSOP-8
- SNT-8A

Caution **This product is intended to use in general electronic devices such as consumer electronics, office equipment, and communications devices. Before using the product in medical equipment or automobile equipment including car audio, keyless entry and engine control unit, contact to ABLIC Inc. is indispensable.**

ABLIC Inc.

S-25C080A

SPI SERIAL E²PROM

The S-25C080A is a SPI serial E²PROM which operates at high speed, with low current consumption and the wide range operation. The S-25C080A has the capacity of 8 K-bit and the organization of 1024 words × 8-bit. Page write and sequential read are available.

■ Features

- Operating voltage range: Read   1.6 V to 5.5 V
                                                 Write   1.7 V to 5.5 V
- Operation frequency: 5.0 MHz (V_{CC} = 2.5 V to 5.5 V)
- Write time: 4.0 ms max.
- SPI mode (0, 0) and (1, 1)
- Page write: 32 bytes / page
- Sequential read
- Write protect: Software, Hardware
  Protect area: 25%, 50%, 100%
- Monitors write to the memory by a status register
- Function to prevent malfunction by monitoring clock pulse
- Write protect function during the low power supply
- CMOS schmitt input ($\overline{CS}$, SCK, SI, $\overline{WP}$, $\overline{HOLD}$)
- Endurance: 10^6cycles / word[*1] (Ta = +25°C)
- Data retention: 100 years (Ta = +25°C)
- Memory capacity: 8 K-bit
- Initial delivery state: FFh, SRWD = 0, BP1 = 0, BP0 = 0
- Operation temperature range: Ta = −40°C to +85°C
- Lead-free, Sn 100%, halogen-free[*2]

  ***1.** For each address (Word: 8-bit)
  ***2.** Refer to "■ **Product Name Structure**" for details.

■ Packages

- 8-Pin SOP (JEDEC)
- 8-Pin TSSOP
- TMSOP-8
- SNT-8A

    Caution **This product is intended to use in general electronic devices such as consumer electronics, office equipment, and communications devices. Before using the product in medical equipment or automobile equipment including car audio, keyless entry and engine control unit, it is imperative to contact our sales representatives.**

S-25C160A

SPI SERIAL E²PROM

The S-25C160A is a SPI serial E²PROM which operates at high speed, with low current consumption and the wide range operation. The S-25C160A has the capacity of 16K-bit and the organization of 2048 words × 8-bit. Page write and sequential read are available.

■ Features

- Operating voltage range: Read 1.6 V to 5.5 V
-                          Write 1.7 V to 5.5 V
- Operation frequency: 5.0 MHz (V_{CC} = 2.5 V to 5.5 V)
- Write time: 5.0 ms max.
- SPI mode (0, 0) and (1, 1)
- Page write: 32 bytes / page
- Sequential read
- Write protect: Software, Hardware
- Protect area: 25%, 50%, 100%
- Monitors write to the memory by a status register
- Function to prevent malfunction by monitoring clock pulse
- Write protect function during the low power supply
- CMOS schmitt input ($\overline{CS}$, SCK, SI, $\overline{WP}$, $\overline{HOLD}$)
- Endurance: 10^6 cycles / word[1] (Ta = +25°C)
- Data retention: 100 years (Ta = +25°C)
- Memory capacity: 16 K-bit
- Initial delivery state: FFh, SRWD = 0, BP1 = 0, BP0 = 0
- Operation temperature range: Ta = −40°C to +85°C
- Lead-free, Sn 100%, halogen-free[2]

  [1]. For each address (Word: 8-bit)
  [2]. Refer to "■ **Product Name Structure**" for details.

■ Packages

- 8-Pin SOP (JEDEC)
- 8-Pin TSSOP
- TMSOP-8
- WLP-8J

Caution **This product is intended to use in general electronic devices such as consumer electronics, office equipment, and communications devices. Before using the product in medical equipment or automobile equipment including car audio, keyless entry and engine control unit, contact to ABLIC Inc. is indispensable.**

ABLIC Inc.

S-25C320A/640A

SPI SERIAL E^{2}PROM

The S-25C320A/640A is a SPI serial E^{2}PROM which operates at high speed, with low current consumption and the wide range operation. The S-25C320A/640A has the capacity of 32 K-bit and 64 K-bit, and the organization is 4096 words × 8-bit, 8192 words × 8-bit. Page write and sequential read are available.

■ Features

- Operating voltage range:
  - Read 1.6 V to 5.5 V
  - Write 1.7 V to 5.5 V
- Operation frequency   5.0 MHz (V_{CC} = 2.5 V to 5.5 V)
- Write time: 5.0 ms max.
- SPI mode (0, 0) and (1, 1)
- Page write: 32 bytes / page
- Sequential read
- Write protect: Software, Hardware
- Protect area: 25%, 50%, 100%
- Monitors Write to the memory by a status register
- Function to prevent malfunction by monitoring clock pulse
- Write protect function during the low power supply voltage
- CMOS schmitt input ($\overline{CS}$, SCK, SI, $\overline{WP}$, $\overline{HOLD}$)
- Endurance: 10^6 cycles / word[*1] (Ta = +25°C)
- Data retention: 100 years (Ta = +25°C)
- Memory capacity:
  - S-25C320A   32 K-bit
  - S-25C640A   64 K-bit
- Initial delivery state: FFh, SRWD = 0, BP1 = 0, BP0 = 0
- Operation temperature range: Ta = −40°C to +85°C
- Lead-free (Sn 100%), halogen-free[*2]

   *1. For each address (Word: 8-bit)
   *2. Refer to "■ **Product Name Structure**" for details.

■ Packages

- 8-Pin SOP (JEDEC)
- 8-Pin TSSOP
- TMSOP-8
- SNT-8A

Caution   **This product is intended to use in general electronic devices such as consumer electronics, office equipment, and communications devices. Before using the product in medical equipment or automobile equipment including car audio, keyless entry and engine control unit, contact to ABLIC Inc. is indispensable.**

ABLIC Inc.

S-25C128A

SPI SERIAL E²PROM

The S-25C128A is a SPI serial E²PROM which operates at high speed, with low current consumption and the wide range operation. The S-25C128A has the capacity of 128 K-bit and the organization of 16384 words × 8-bit. Page write and sequential read are available.

■ Features

- Operating voltage range: Read   1.6 V to 5.5 V
                                        Write   1.7 V to 5.5 V
- Operation frequency: 5.0 MHz (V_{CC} = 2.5 V to 5.5 V)
- Write time: 5.0 ms max.
- SPI mode (0, 0) and (1, 1)
- Page write: 64 bytes / page
- Sequential read
- Write protect: Software, Hardware
  Protect area: 25%, 50%, 100%
- Monitors write to the memory by a status register
- Function to prevent malfunction by monitoring clock pulse
- Write protect function during the low power supply voltage
- CMOS schmitt input（$\overline{CS}$, SCK, SI, $\overline{WP}$, $\overline{HOLD}$）
- Endurance: 10^6 cycles / word[*1] (Ta = +25°C)
- Data retention: 100 years (Ta = +25°C)
- Memory capacity: 128 K-bit
- Initial delivery state: FFh, SRWD = 0, BP1 = 0, BP0 = 0
- Operation temperature range: Ta = −40°C to +85°C
- Lead-free (Sn 100%), halogen-free[*2]

  *1. For each address (Word: 8-bit)
  *2. Refer to “■ **Product Name Structure**” for details.

■ Packages

- 8-Pin SOP (JEDEC)
- 8-Pin TSSOP

Caution **This product is intended to use in general electronic devices such as consumer electronics, office equipment, and communications devices. Before using the product in medical equipment or automobile equipment including car audio, keyless entry and engine control unit, contact to ABLIC Inc. is indispensable.**

ABLIC Inc.

S-25C256A

SPI SERIAL E²PROM

The S-25C256A is a SPI serial E²PROM which operates at high speed, with low current consumption and the wide range operation. The S-25C256A has the capacity of 256 K-bit and the organization of 32768 words × 8-bit. Page write and sequential read are available.

■ Features

- Operating voltage range: Read   1.6 V to 5.5 V
                                     Write   1.7 V to 5.5 V
- Operation frequency: 10.0 MHz (V_{CC} = 2.5 V to 5.5 V)
- Write time: 5.0 ms max.
- SPI mode (0, 0) and (1, 1)
- Page write: 64 bytes / page
- Sequential read
- Write protect: Software, Hardware
  Protect area: 25%, 50%, 100%
- Monitors write to the memory by a status register
- Function to prevent malfunction by monitoring clock pulse
- Write protect function during the low power supply voltage
- CMOS schmitt input（$\overline{CS}$, SCK, SI, $\overline{WP}$, $\overline{HOLD}$）
- Endurance: 10^6 cycles / unit [1] (Ta = +25°C)
- Data retention: 100 years (Ta = +25°C)
- Memory capacity: 256 K-bit
- Initial delivery state: FFh, SRWD = 0, BP1 = 0, BP0 = 0
- Operation temperature range: Ta = −40°C to +85°C
- Lead-free (Sn 100%), halogen-free[2]

   [1]. For each unit (unit: the 4 bytes with the same address of A14 to A2)
   [2]. Refer to "■ **Product Name Structure**" for details.

■ Packages

- 8-Pin SOP (JEDEC)
- 8-Pin TSSOP

    Caution **This product is intended to use in general electronic devices such as consumer electronics, office equipment, and communications devices. Before using the product in medical equipment or automobile equipment including car audio, keyless entry and engine control unit, contact to ABLIC Inc. is indispensable.**

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S-25C512A

SPI SERIAL E²PROM

The S-25C512A is a SPI serial E²PROM which operates at high speed, with low current consumption and the wide range operation. The S-25C512A has the capacity of 512 K-bit and the organization of 65536 words × 8-bit. Page write and sequential read are available.

■ Features

- Operating voltage range: Read 1.6 V to 5.5 V
  Write 1.7 V to 5.5 V
- Operation frequency: 10.0 MHz (V_{CC} = 2.5 V to 5.5 V)
- Write time: 5.0 ms max.
- SPI mode (0, 0) and (1, 1)
- Page write: 128 bytes / page
- Sequential read
- Write protect: Software, Hardware
  Protect area: 25%, 50%, 100%
- Monitors write to the memory by a status register
- Function to prevent malfunction by monitoring clock pulse
- Write protect function during the low power supply voltage
- CMOS schmitt input ($\overline{CS}$, SCK, SI, $\overline{WP}$, $\overline{HOLD}$)
- Endurance: 10^6 cycles / unit[1] (Ta = +25°C)
- Data retention: 100 years (Ta = +25°C)
- Memory capacity: 512 K-bit
- Initial delivery state: FFh, SRWD = 0, BP1 = 0, BP0 = 0
- Operation temperature range: Ta = −40°C to +85°C
- Lead-free (Sn 100%), halogen-free[2]

  *1. For each unit (unit: the 4 bytes with the same address of A15 to A2)
  *2. Refer to "■ **Product Name Structure**" for details.

■ Packages

- 8-Pin SOP (JEDEC)
- 8-Pin TSSOP

Caution **This product is intended to use in general electronic devices such as consumer electronics, office equipment, and communications devices. Before using the product in medical equipment or automobile equipment including car audio, keyless entry and engine control unit, contact to ABLIC Inc. is indispensable.**

ABLIC Inc.

S-25CM01A

SPI SERIAL E^{2}PROM

The S-25CM01A is a SPI serial E^{2}PROM which operates at high speed, with low current consumption and the wide range operation. The S-25CM01A has the capacity of 1 M-bit and the organization of 131072 words × 8-bit. Page write and sequential read are available.

■ Features

- Operating voltage range: Read   1.6 V to 5.5 V
                                  Write   1.7 V to 5.5 V
- Operation frequency: 10.0 MHz (V_{CC} = 2.5 V to 5.5 V)
- Write time: 5.0 ms max.
- SPI mode (0, 0) and (1, 1)
- Page write: 256 bytes / page
- Sequential read
- Write protect: Software, Hardware
  Protect area: 25%, 50%, 100%
- Monitors write to the memory by a status register
- Function to prevent malfunction by monitoring clock pulse
- Write protect function during the low power supply voltage
- CMOS schmitt input ($\overline{CS}$, SCK, SI, $\overline{WP}$, $\overline{HOLD}$)
- Endurance: 10^6 cycles / unit[*1] (Ta = +25°C)
- Data retention: 100 years (Ta = +25°C)
- Memory capacity: 1 M-bit
- Initial delivery state: FFh, SRWD = 0, BP1 = 0, BP0 = 0
- Operation temperature range: Ta = −40°C to +85°C
- Lead-free (Sn 100%), halogen-free[*2]

   *1. For each unit (unit: the 4 bytes with the same address of A16 to A2)
   *2. Refer to "■ **Product Name Structure**" for details.

■ Package

- 8-Pin SOP (JEDEC)

   Caution   **This product is intended to use in general electronic devices such as consumer electronics, office equipment, and communications devices. Before using the product in medical equipment or automobile equipment including car audio, keyless entry and engine control unit, contact to ABLIC Inc. is indispensable.**

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S-24C02D/04D/08D/16D

2-WIRE SERIAL E^{2}PROM

This IC is a 2-wire, low current consumption and wide range operation serial E^{2}PROM. This IC has the capacity of 2 K-bit, 4 K-bit, 8-K bit and 16 K-bit, and the organization is 256 words × 8-bit, 512 words × 8-bit, 1024 words × 8-bit and 2048 words × 8-bit, respectively. Page write and sequential read are available.

Caution **This product is intended to use in general electronic devices such as consumer electronics, office equipment, and communications devices. Before using the product in medical equipment or automobile equipment including car audio, keyless entry and engine control unit, contact to ABLIC Inc. is indispensable.**

■ Features

- Operation voltage range
  - Read: 1.7 V to 5.5 V
  - Write: 1.7 V to 5.5 V
- Operation frequency:
  - 1.0 MHz max. (V_{CC} = 2.5 V to 5.5 V)
  - 400 kHz max. (V_{CC} = 1.7 V to 5.5 V)
- Write time: 5.0 ms max.
- Page write
  - S-24C02D: 8 bytes / page
  - S-24C04D: 16 bytes / page
  - S-24C08D: 16 bytes / page
  - S-24C16D: 16 bytes / page
- Sequential read
- Noise suppression:
  Schmitt trigger and noise filter on input pins (SCL, SDA)
- Write protect function during low power supply voltage
- Endurance: 10^6 cycle / word[1] (Ta = +25°C)
- Data retention: 100 years (Ta = +25°C)
- Memory capacity
  - S-24C02D: 2 K-bit
  - S-24C04D: 4 K-bit
  - S-24C08D: 8 K-bit
  - S-24C16D: 16 K-bit
- Write protect: 100%
- Initial delivery state: FFh
- Operation temperature range: Ta = −40°C to +85°C
- Lead-free (Sn 100%), halogen-free

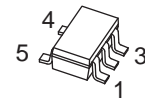**[1].**   For each address (Word: 8-bit)

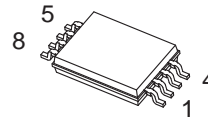## ■ Packages

- 8-Pin SOP (JEDEC)
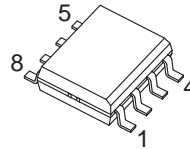
(5.0 × 6.0 × t1.75 mm)
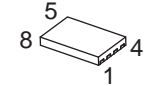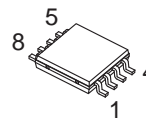
- SOT-23-5

(2.8 × 2.9 × t1.3 mm)

- 8-Pin TSSOP

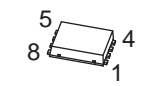(3.0 × 6.4 × t1.1 mm)

- DFN-8(2030)

(3.0 × 2.0 × t0.5 mm)

- TMSOP-8

(2.9 × 4.0 × t0.8 mm)

- SNT-8A

(2.5 × 2.0 × t0.5 mm)

S-24C08C (WLP PRODUCT)

2-WIRE SERIAL E²PROM

The S-24C08C is a 2-wire, low current consumption and wide range operation serial E²PROM. The S-24C08C has the capacity of 8 K-bit, and the organization is 1024 words × 8-bit. Page write and sequential read are available.

Caution This product is intended to use in general electronic devices such as consumer electronics, office equipment, and communications devices. Before using the product in medical equipment or automobile equipment including car audio, keyless entry and engine control unit, contact to ABLIC Inc. is indispensable.

■ Features

- Operating voltage range   Read: 1.6 V to 5.5 V
                             Write: 1.7 V to 5.5 V
- Page write: 16 bytes / page
- Sequential read
- Operation frequency: 400 kHz (V_{CC} = 1.6 V to 5.5 V)
- Write time: 5.0 ms max.
- Noise suppression   Schmitt trigger and noise filter on input pins (SCL, SDA)
- Write protect function during the low power supply voltage
- Endurance: 10^6 cycles / word[1] (Ta = +25°C)
- Data retention: 100 years (Ta = +25°C)
- Memory capacity: 8 K-bit
- Write protect: 100%
- Initial delivery data: FFh
- Lead-free, halogen-free

  [1]. For each address (Word: 8-bit)

■ Package

- WLP-6J

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S-24C16C (WLP PRODUCT)

2-WIRE SERIAL E²PROM

The S-24C16C is a 2-wire, low current consumption and wide range operation serial E²PROM. The S-24C16C has the capacity of 16 K-bit, and the organization is 2048 words × 8-bit. Page write and sequential read are available.

Caution **This product is intended to use in general electronic devices such as consumer electronics, office equipment, and communications devices. Before using the product in medical equipment or automobile equipment including car audio, keyless entry and engine control unit, contact to ABLIC Inc. is indispensable.**

■ Features

- Operating voltage range   Read: 1.6 V to 5.5 V
                                             Write: 1.7 V to 5.5 V
- Page write: 16 bytes / page
- Sequential read
- Operation frequency: 400 kHz (1.6 V to 5.5 V)
- Write time: 5.0 ms max.
- Noise suppression: Schmitt trigger and noise filter on input pins (SCL, SDA)
- Write protect function during the low power supply voltage
- Endurance: 10^6 cycles / word[*1] (Ta = +25°C)
- Data retention: 100 years (Ta = +25°C)
- Memory capacity: 16 K-bit
- Write protect: 100%
- Initial delivery data: FFh
- Lead-free, halogen-free

  ***1.** For each address (Word: 8-bit)

■ Package

- WLP-6J

ABLIC Inc.

S-24C32C/64C

2-WIRE SERIAL E²PROM

The S-24C32C/64C is a 2-wire, low current consumption and wide range operation serial E²PROM. The S-24C32C/64C has the capacity of 32 K-bit and 64 K-bit, and the organization is 4096 words × 8-bit, 8192 words × 8-bit, respectively. Page write and sequential read are available.

■ Features

- Operating voltage range   Read: 1.6 V to 5.5 V
                            Write: 1.7 V to 5.5 V
- Page write: 32 bytes / page
- Sequential read
- Operation frequency: 400 kHz (V_{CC} = 1.6 V to 5.5 V)
- Write time: 5.0 ms max.
- Noise suppression: Schmitt trigger and noise filter on input pins (SCL, SDA)
- Write protect function during the low power supply voltage
- Endurance: 10^6 cycles / word[1] (Ta = +25°C)
- Data retention: 100 years (Ta = +25°C)
- Memory capacity   S-24C32C: 32 K-bit
                            S-24C64C: 64 K-bit
- Write protect: 100%
- Initial shipment data: FFh
- Lead-free (Sn 100%), halogen-free[2]

 *1. For each address (Word: 8-bit)
 *2. Refer to "■ **Product Name Structure**" for details.

■ Packages

- 8-Pin SOP (JEDEC)
- 8-Pin TSSOP
- TMSOP-8
- SNT-8A

Caution This product is intended to use in general electronic devices such as consumer electronics, office equipment, and communication devices. Before using the product in medical equipment or automobile equipment including car audio, keyless entry and engine control unit, contact to ABLIC Inc. is indispensable.

ABLIC Inc.

S-24C128C

2-WIRE SERIAL E^{2}PROM

The S-24C128C is a 2-wire, low current consumption and wide range operation serial E^{2}PROM. The S-24C128C has the capacity of 128K-bit, and the organization is 16384 words × 8-bit. Page write and sequential read are available.

■ Features

- Operating voltage range   Read: 1.6 V to 5.5 V
-                           Write: 1.7 V to 5.5 V
- Page write: 64 bytes / page
- Sequential read
- Operation frequency: 400 kHz (V_{CC} = 1.6 V to 5.5 V)
- Write time: 5.0 ms max.
- Noise suppression: Schmitt trigger and noise filter on input pins (SCL, SDA)
- Write protect function during the low power supply voltage
- Endurance: 10^6 cycles / word[*1] (Ta = +25°C)
- Data retention: 100 years (Ta = +25°C)
- Memory capacity: 128 K-bit
- Write protect: 100%
- Initial shipment data: FFh
- Lead-free (Sn 100%), halogen-free[*2]

*1. For each address (Word: 8-bit)
*2. Refer to "■ **Product Name Structure**" for details.

■ Packages

- 8-Pin SOP (JEDEC)
- 8-Pin TSSOP

Caution   This product is intended to use in general electronic devices such as consumer electronics, office equipment, and communications devices. Before using the product in medical equipment or automobile equipment including car audio, keyless entry and engine control unit, contact to ABLIC Inc. is indispensable.

ABLIC Inc.

S-24C256C

2-WIRE SERIAL E²PROM

The S-24C256C is a 2-wire, low current consumption and wide range operation serial E²PROM. The S-24C256C has the capacity of 256 K-bit, and the organization is 32768 words × 8-bit. Page write and sequential read are available.

■ Features

- Operating voltage range   Read: 1.6 V to 5.5 V
  -     Write: 1.7 V to 5.5 V
- Page write: 64 bytes / page
- Sequential read
- Operation frequency: 1.0 MHz (V_{CC} = 2.5 V to 5.5 V)
  -     400 kHz (V_{CC} = 1.6 V to 2.5 V)
- Write time: 5.0 ms max.
- Noise suppression: Schmitt trigger and noise filter on input pins (SCL, SDA)
- Write protect function during the low power supply voltage
- Endurance: 10^6 cycles / unit[1] (Ta = +25°C)
- Data retention: 100 years (Ta = +25°C)
- Memory capacity: 256 K-bit
- Write protect: 100%
- Initial shipment data: FFh
- Lead-free (Sn 100%), halogen-free[2]

  ***1.** For each unit (unit: the 4 bytes with the same address of W14 to W2)
  ***2.** Refer to "■ **Product Name Structure**" for details.

■ Packages

- 8-Pin SOP (JEDEC)
- 8-Pin TSSOP

Caution   **This product is intended to use in general electronic devices such as consumer electronics, office equipment, and communications devices. Before using the product in medical equipment or automobile equipment including car audio, keyless entry and engine control unit, contact to ABLIC Inc. is indispensable.**

ABLIC Inc.

S-24C512C

2-WIRE SERIAL E^{2}PROM

The S-24C512C is a 2-wire, low current consumption and wide range operation serial E^{2}PROM. The S-24C512C has the capacity of 512 K-bit, and the organization is 65536 words × 8-bit. Page write and sequential read are available.

■ Features

- Operating voltage range   Read: 1.6 V to 5.5 V
                               Write: 1.7 V to 5.5 V
- Page write: 128 bytes / page
- Sequential read
- Operation frequency: 1.0 MHz (V_{CC} = 2.5 V to 5.5 V)
                               400 kHz (V_{CC} = 1.6 V to 2.5 V)
- Write time: 5.0 ms max.
- Noise suppression: Schmitt trigger and noise filter on input pins (SCL, SDA)
- Write protect function during the low power supply voltage
- Endurance: 10^6 cycles / unit[1] (Ta = +25°C)
- Data retention: 100 years (Ta = +25°C)
- Memory capacity: 512 K-bit
- Write protect: 100%
- Initial shipment data: FFh
- Lead-free (Sn 100%), halogen-free[2]

   [1]. For each unit (unit: the 4 bytes with the same address of W15 to W2)
   [2]. Refer to "■ **Product Name Structure**" for details.

■ Packages

- 8-Pin SOP (JEDEC)
- 8-Pin TSSOP

Caution   **This product is intended to use in general electronic devices such as consumer electronics, office equipment, and communications devices. Before using the product in medical equipment or automobile equipment including car audio, keyless entry and engine control unit, contact to ABLIC Inc. is indispensable.**

ABLIC Inc.

S-24CM01C

2-WIRE SERIAL E^{2}PROM

The S-24CM01C is a 2-wire, low current consumption and wide range operation serial E^{2}PROM. The S-24CM01C has the capacity of 1 M-bit, and the organization is 131072 words × 8-bit. Page write and sequential read are available.

■ Features

- Operating voltage range   Read: 1.6 V to 5.5 V
  - Write: 1.7 V to 5.5 V
- Page write: 256 bytes / page
- Sequential read
- Operation frequency: 1.0 MHz (V_{CC} = 2.5 V to 5.5 V)
  - 400 kHz (V_{CC} = 1.6 V to 2.5 V)
- Write time: 5.0 ms max.
- Noise suppression: Schmitt trigger and noise filter on input pins (SCL, SDA)
- Write protect function during the low power supply voltage
- Endurance: 10^6 cycles / unit[1] (Ta = +25°C)
- Data retention: 100 years (Ta = +25°C)
- Memory capacity: 1 M-bit
- Write protect: 100%
- Initial shipment data: FFh
- Lead-free (Sn 100%), halogen-free[2]

   [1]. For each unit (unit: the 4 bytes with the same address of P0, W15 to W2)
   [2]. Refer to "■ **Product Name Structure**" for details.

■ Package

- 8-Pin SOP (JEDEC)

   Caution   **This product is intended to use in general electronic devices such as consumer electronics, office equipment, and communications devices. Before using the product in medical equipment or automobile equipment including car audio, keyless entry and engine control unit, contact to ABLIC Inc. is indispensable.**

S-93C46C/56C/66C/76C/86C

3-WIRE SERIAL E^{2}PROM

This IC is a high speed, low current consumption, 3-wire serial E^{2}PROM with a wide operating voltage range. This IC has the capacity of 1 K-bit, 2 K-bit, 4 K-bit, 8 K-bit and 16 K-bit, and the organization is 64 words × 16-bit, 128 words × 16-bit, 256 words × 16-bit, 512 words × 16-bit and 1024 words × 16-bit, respectively. Sequential read is available, at which time addresses are automatically incremented in 16-bit blocks. The communication method is by the Microwire bus.

Caution **This product is intended to use in general electronic devices such as consumer electronics, office equipment, and communications devices. Before using the product in medical equipment or automobile equipment including car audio, keyless entry and engine control unit, contact to ABLIC Inc. is indispensable.**

■ Features

- Memory capacity
  - S-93C46C: 1 K-bit (64-word × 16-bit)
  - S-93C56C: 2 K-bit (128-word × 16-bit)
  - S-93C66C: 4 K-bit (256-word × 16-bit)
  - S-93C76C: 8 K-bit (512-word × 16-bit)
  - S-93C86C: 16 K-bit (1024-word × 16-bit)
- Operation voltage range
  - Read: 1.6 V to 5.5 V
  - Write: 1.8 V to 5.5 V
- Operation frequency: 2.0 MHz max.
- Write time: 4.0 ms max.
- Sequential read
- Write protect function during the low power supply voltage
- Function to protect against write due to erroneous instruction recognition
- Endurance: 10^6 cycle / word[*1] (Ta = +85°C)
- Data retention: 100 years (Ta = +25°C)
  - 50 years (Ta = +85°C)
- Initial delivery state: FFFFh
- Operation temperature range: Ta = −40°C to +85°C
- Lead-free (Sn 100%), halogen-free

*1. For each address (Word: 16-bit)

■ Packages

- 8-Pin SOP (JEDEC)
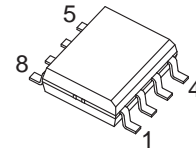
(5.0 × 6.0 × t1.75 mm)

- 8-Pin TSSOP
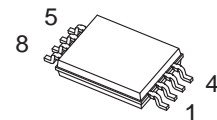
(3.0 × 6.4 × t1.1 mm)

- TMSOP-8

(2.9 × 4.0 × t0.8 mm)

- SNT-8A

(2.5 × 2.0 × t0.5 mm)

ABLIC Inc.
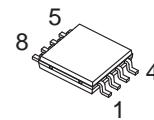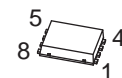
S-34TS04A

2-WIRE SERIAL E^{2}PROM
WITH TEMPERATURE SENSOR
FOR DIMM SERIAL PRESENCE DETECT

This IC is a 2-wire serial E^{2}PROM with temperature sensor for DIMM serial presence detect which operates in 2.2 V to 3.6 V voltage ranges. This IC has the capacity of 4 K-bit and the organization of 2 pages × 256-word × 8-bit. Page write and sequential read are available.

This IC operates with the I^{2}C-bus at 1.0 MHz maximum.

A substantial reduction in current consumption may be achieved by using the software programmed shutdown mode which can be set by the I^{2}C-bus.

Caution **This product is intended to use in general electronic devices such as consumer electronics, office equipment, and communications devices. Before using the product in medical equipment or automobile equipment including car audio, keyless entry and engine control unit, it is imperative to contact our sales representatives.**

■ Features

E^{2}PROM block

- Page write: 16 bytes / page
- Sequential read
- Write protect function during low power supply voltage
- Write protect:
  Individual software data protection for each of four 128-byte blocks
- Endurance: 10^6 cycle / word*1 (Ta = +25°C)
- Data retention: 100 years (Ta = +25°C)
- Memory capacity: 4 K-bit
- Initial delivery state: FFh

Temperature sensor block

- Temperature accuracy: 0.5°C typ. (Ta = +75°C to +95°C)
  1.0°C typ. (Ta = +40°C to +125°C)
- Temperature sample rate: 8 samples / s min.
- Selectable hysteresis width: No hysteresis, 1.5°C, 3.0°C, 6.0°C

Overall

- JEDEC standard compliant: TSE2004B2
- Current consumption:
  E^{2}PROM in standby mode and temperature sensor in shutdown mode: 3.0 µA max.
  E^{2}PROM in standby mode and temperature sensor in active mode: 0.1 mA max.
  E^{2}PROM in read operation mode and temperature sensor in active mode: 0.4 mA max.
  E^{2}PROM in write operation mode and temperature sensor in active mode: 2.0 mA max.
- Operation voltage range: 2.2 V to 3.6 V
- Operation frequency: 1.0 MHz max. (V$_{DD}$ = 2.2 V to 3.6 V)
- Noise suppression: Schmitt trigger and noise filter on input pins (SCL, SDA)
- Operation temperature range: Ta = −20°C to +125°C
- Lead-free (Sn 100%), halogen-free

*1. For each address (Word: 8-bit)

■ Package

- DFN-8(2030)B

(3.0 × 2.0 × t0.8 mm)

ABLIC Inc.
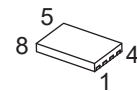
S-34HTS08AB

DDR5 SPD EEPROM WITH HUB BUILT-IN TEMPERATURE SENSOR

This IC is a DDR5 Serial Presence Detect EEPROM with Hub function (SPD5 Hub) built in temperature sensor.

The Hub feature allows isolation of a local bus from a controller host bus. This IC contains 1024 bytes (8K-bit) of EEPROM arranged as 16 blocks of 64 bytes (512 bit) per block. Each block can be write protected via software command. Page write and sequential read are available. This IC operates with 1.8 V VDDSPD and 1.0 V VDDIO and the SidebandBus (I²C & I3C) at 12.5 MHz maximum.

Caution **This product is intended to use in general electronic devices such as consumer electronics, office equipment, and communications devices. Before using the product in medical equipment or automobile equipment including car audio, keyless entry and engine control unit, contact to ABLIC Inc. is indispensable.**

■ Features

- JEDEC standard compliant: SPD5118
- Two-wire I²C or I3C bus serial interface
- Operation voltage range (V_DDSPD): 1.7 V to 1.98 V
- Operation voltage range (V_DDIO): 0.95 V to 1.05 V
- Operation frequency:
  I²C: 1.0 MHz max. (V_DDSPD = 1.7 V to 1.98 V)
  I3C: 12.5 MHz max. (V_DDSPD = 1.7 V to 1.98V)
- 1.0 V Push Pull I/O levels
- 1.0 V and 3.3 V Open Drain I/O levels
- Operation temperature range: Ta = −40°C to +125°C
- Operation temperature range (NVM Write Operation):
  Ta = -40°C to +95°C

EEPROM

- Page write:16 bytes / page
- Sequential read
- Write protect function during low power supply voltage
- Write protect: Individual software data protection for each of 16 blocks of 64-bytes per block
- Endurance: 10^5 cycle / word[*1] (Ta = -40°C to +95°C)
- Memory capacity: 8 K-bit
- Initial delivery state: FFh

Temperature sensor

- Temperature accuracy:
  0.5°C typ. (Ta = +75°C to +95°C)
  1.0°C typ. (Ta = +40°C to +125°C)
- Temperature sample rate: 8 samples / s min.
- hysteresis width: 1.0°C

Hub Function

- Interfaces to I²C/I3C buses which have multiple devices on a shared bus
- Uniquely addressed with fixed addressing on the same bus.
- All Hubs respond to specific predefined I²C/I3C device select codes on a host interface bus
- Integrates a second local I²C/I3C bus and passes through of commands from host bus onto local bus for addressing of I²C/I3C devices on local bus

Overall

- Current consumption:
  EEPROM in standby mode and temperature sensor in active mode: 0.15 mA max.[*2]
  EEPROM in read operation mode and temperature sensor in active mode: 2.0 mA max.[*2]
  EEPROM in write operation mode and temperature sensor in active mode: 3.0 mA max.[*2]
- Noise suppression:
  Schmitt trigger on input pins (HSCL, HSDA, LSDA)
  Noise filter on input pins at I²C (HSCL, HSDA)
- Packet Error Check (PEC) function
- Parity Error check function
- In Band Interrupt (IBI)
- Bus Reset function
- Up to 8 unique addressing
- 9-pin thermally enhanced DFN package

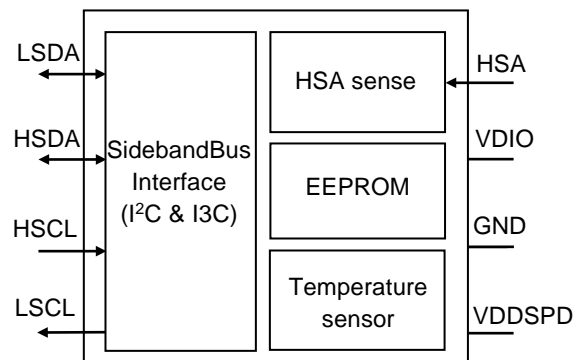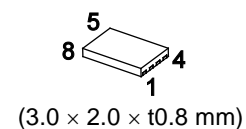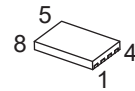***1.** For each address (Word: 8-bit)
*2. V_DDSPD = 1.8V

■ Block Diagram

Figure 1 SPD5118 Block Diagram

■ Package

- DFN-8(2030)B

(3.0 × 2.0 × t0.8 mm)

ABLIC Inc.

S-34C04A

2-WIRE SERIAL E^{2}PROM
FOR DIMM SERIAL PRESENCE DETECT

This IC is a 2-wire serial E^{2}PROM for DIMM serial presence detect which operates in 1.7 V to 3.6 V voltage ranges. This IC has the capacity of 4 K-bit and the organization of 2 pages × 256-word × 8-bit. Page write and sequential read are available. This IC operates with the I^{2}C-bus at 1.0 MHz maximum.

Caution **This product is intended to use in general electronic devices such as consumer electronics, office equipment, and communications devices. Before using the product in medical equipment or automobile equipment including car audio, keyless entry and engine control unit, it is imperative to contact our sales representatives.**

■ Features

- Page write: 16 bytes / page
- Sequential read
- Write protect function during low power supply voltage
- Write protect:
  Individual software data protection for each of four 128-byte blocks
- Endurance: 10^6 cycle / word[*1] (Ta = +25°C)
- Data retention: 100 years (Ta = +25°C)
- Memory capacity: 4 K-bit
- Initial delivery state: FFh
- JEDEC standard compliant: EE1004-1
- Current consumption:
  Standby mode: 3.0 μA max.
  Read operation mode: 0.4 mA max.
  Write operation mode: 2.0 mA max.
- Operation voltage range: 1.7 V to 3.6 V
- Operation frequency: 1.0 MHz max. (V_{DD} = 2.2 V to 3.6 V)
  400 kHz max. (V_{DD} = 1.7 V to 3.6 V)
- Noise suppression: Schmitt trigger and noise filter on input pins (SCL, SDA)
- Operation temperature range: Ta = −20°C to +125°C
- Lead-free (Sn 100%), halogen-free

*1.   For each address (Word: 8-bit)

■ Package

- DFN-8(2030)A

(3.0 × 2.0 × t0.6 mm)

ABLIC Inc.

S-585AA

BUILT-IN ARP FUNCTION
2-WIRE SERIAL E^{2}PROM
WITH TEMPERATURE SENSOR

This IC is a 2-wire serial E^{2}PROM with temperature sensor built in Address Resolution Protocol (ARP) function which operates in 1.7 V to 3.6 V voltage ranges. This IC has the capacity of 4 K-bit and the organization of 2 pages × 256-word × 8-bit. Page write and sequential read are available.

This IC operates with the SMBus and I^{2}C-Bus at 1.0 MHz maximum.

A substantial reduction in current consumption may be achieved by using shutdown mode which can be set by the I^{2}C-Bus.

In addition, the SMBus ARP function is supported; therefore, this IC is optimal for SSDs that communicate over the SMBus.

Caution **This product is intended to use in general electronic devices such as consumer electronics, office equipment, and communications devices. Before using the product in medical equipment or automobile equipment including car audio, keyless entry and engine control unit, it is imperative to contact our sales representatives.**

■ Features

E^{2}PROM block

- Page write: 16 bytes / page
- Sequential read
- Write protect function during low power supply voltage
- Write protect:
  Individual software data protection for each of four 128-byte blocks
- Endurance: 10^6 cycle / word^{*1} (Ta = +25°C)
- Data retention: 100 years (Ta = +25°C)
- Memory capacity: 4 K-bit
- Initial delivery state: FFh

Temperature sensor block

- Temperature accuracy: ±0.25°C typ. / ±1.0°C max. (Ta = 0°C to +85°C)
                              ±0.25°C typ. / ±1.5°C max. (Ta = −40°C to +125°C)
- Temperature sample rate: 8 samples / s min.
- Selectable hysteresis width: No hysteresis, 1.5°C, 3.0°C, 6.0°C

Overall

- Support for SMBus ARP function
- Support for Alert Response Address function (ARA)
- Support for Default Slave Address (DSA)
- Current consumption:
  E^{2}PROM in standby mode and temperature sensor in shutdown mode: 3.0 μA max.
  E^{2}PROM in standby mode and temperature sensor in active mode: 0.1 mA max.
  E^{2}PROM in read operation mode and temperature sensor in active mode: 0.4 mA max.
  E^{2}PROM in write operation mode and temperature sensor in active mode: 2.0 mA max.
- Operation voltage range: 1.7 V to 3.6 V
- Operation frequency: 1.0 MHz max. (V_{DD} = 2.2 V to 3.6 V)
                              400 kHz max. (V_{DD} = 1.7 V to 3.6 V)
- Noise suppression: Schmitt trigger and noise filter on input pins (SCL, SDA)
- Operation temperature range: Ta = −40°C to +125°C
- Lead-free (Sn 100%), halogen-free

*1.   For each address (Word: 8-bit)

■ Package

- DFN-8(2030)B

(3.0 × 2.0 × t0.8 mm max.)

ABLIC Inc.
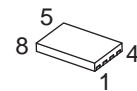
S-34TS04L

2-WIRE SERIAL E²PROM
WITH TEMPERATURE SENSOR

This IC is a 2-wire serial E²PROM with temperature sensor which operates in 1.7 V to 3.6 V voltage ranges. This IC has the capacity of 4 K-bit and the organization of 2 pages × 256-word × 8-bit. Page write and sequential read are available. This IC operates with the I²C-bus at 1.0 MHz maximum.

A substantial reduction in current consumption may be achieved by using the software programmed shutdown mode which can be set by the I²C-bus.

In addition, the SMBus timeout function is supported; therefore, this IC is optimal for SSDs that communicate over the SMBus.

Caution   **This product is intended to use in general electronic devices such as consumer electronics, office equipment, and communications devices. Before using the product in medical equipment or automobile equipment including car audio, keyless entry and engine control unit, it is imperative to contact our sales representatives.**
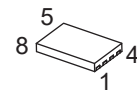
■ Features

E²PROM block

- Page write: 16 bytes / page
- Sequential read
- Write protect function during low power supply voltage
- Write protect:
  Individual software data protection for each of four 128-byte blocks
- Endurance: 10^6 cycle / word[*1] (Ta = +25°C)
- Data retention: 100 years (Ta = +25°C)
- Memory capacity: 4 K-bit
- Initial delivery state: FFh

Temperature sensor block

- Temperature accuracy: 0.5°C typ. (Ta = +75°C to +95°C)
                                 1.0°C typ. (Ta = +40°C to +125°C)
- Temperature sample rate: 8 samples / s min.
- Selectable hysteresis width: No hysteresis, 1.5°C, 3.0°C, 6.0°C

Overall

- Current consumption:
  E²PROM in standby mode and temperature sensor in shutdown mode: 3.0 µA max.
  E²PROM in standby mode and temperature sensor in active mode: 0.1 mA max.
  E²PROM in read operation mode and temperature sensor in active mode: 0.4 mA max.
  E²PROM in write operation mode and temperature sensor in active mode: 2.0 mA max.
- Operation voltage range: 1.7 V to 3.6 V
- Operation frequency: 1.0 MHz max. (V_{DD} = 2.2 V to 3.6 V)
- Noise suppression: Schmitt trigger and noise filter on input pins (SCL, SDA)
- Supported SMBus timeout function
- Operation temperature range: Ta = −20°C to +125°C
- Lead-free (Sn 100%), halogen-free

*1.   For each address (Word: 8-bit)
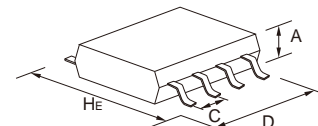
■ Package

- DFN-8(2030)B
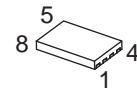
(3.0 × 2.0 × t0.8 mm)

S-34C04A

2-WIRE SERIAL E^{2}PROM
FOR DIMM SERIAL PRESENCE DETECT

This IC is a 2-wire serial E^{2}PROM for DIMM serial presence detect which operates in 1.7 V to 3.6 V voltage ranges. This IC has the capacity of 4 K-bit and the organization of 2 pages × 256-word × 8-bit. Page write and sequential read are available. This IC operates with the I^{2}C-bus at 1.0 MHz maximum.

Caution **This product is intended to use in general electronic devices such as consumer electronics, office equipment, and communications devices. Before using the product in medical equipment or automobile equipment including car audio, keyless entry and engine control unit, it is imperative to contact our sales representatives.**

■ Features

- Page write: 16 bytes / page
- Sequential read
- Write protect function during low power supply voltage
- Write protect:
  Individual software data protection for each of four 128-byte blocks
- Endurance: 10^6 cycle / word[*1] (Ta = +25°C)
- Data retention: 100 years (Ta = +25°C)
- Memory capacity: 4 K-bit
- Initial delivery state: FFh
- JEDEC standard compliant: EE1004-1
- Current consumption:
  Standby mode: 3.0 µA max.
  Read operation mode: 0.4 mA max.
  Write operation mode: 2.0 mA max.
- Operation voltage range: 1.7 V to 3.6 V
- Operation frequency: 1.0 MHz max. (V_{DD} = 2.2 V to 3.6 V)
  400 kHz max. (V_{DD} = 1.7 V to 3.6 V)
- Noise suppression: Schmitt trigger and noise filter on input pins (SCL, SDA)
- Operation temperature range: Ta = −20°C to +125°C
- Lead-free (Sn 100%), halogen-free

*1. For each address (Word: 8-bit)

■ Package

- DFN-8(2030)A

(3.0 × 2.0 × t0.6 mm)

ABLIC Inc.

Package List

Package Type	Pin Count	Package Name	Package Size (mm)			Pitch (mm)
			H_E	D	A (max.)	C
Lead insertion type	3	TO-92	14.5	5.2	4.2	2.5/1.27
Flat-lead type	3	SOT-89-3	4.0	4.5	1.6	1.5
	5	SOT-89-5	4.5	4.5	1.6	1.5
Gull-wing type	4	SC-82AB	2.1	2.0	1.1	1.3
	5	SC-88A	2.1	2.0	1.1	0.65
	3	SOT-23-3	2.8	2.9	1.3	1.9
	3	SOT-23-3S	2.8	2.9	1.2	1.9
	3	TSOT-23-3S	2.85	2.9	0.8	1.9
	5	SOT-23-5	2.8	2.9	1.3	0.95
	6	SOT-23-6	2.8	2.9	1.35	0.95
	6	SOT-23-6W	2.8	2.9	1.3	0.95
	8	8-Pin SOP (JEDEC)	6.0	5.02	1.75	1.27
	8	8-Pin TSSOP	6.4	3.0	1.1	0.65
	16	16-Pin TSSOP	6.4	5.1	1.1	0.65
	20	20-Pin TSSOP	6.4	6.5	1.2	0.65
	24	24-Pin SSOP	7.6	7.9	1.4	0.65
	8	TMSOP-8	4.0	2.9	0.8	0.65
	8	HTMSOP-8	4.0	2.9	0.8	0.65
	16	HTSSOP-16	6.4	5.12	1.1	0.65
	6	HSOP-6	6.0	5.02	1.75	1.91
	8	HSOP-8A	6.0	5.02	1.68	1.27
	8	HSOP-8Q	6.0	5.02	1.68	1.27
	5	TO-252-5S(A)	6.5	6.5	1.4	1.27
	9	TO-252-9S	6.5	6.5	1.4	0.65
Non-lead type	6	6-Pin HSON(A)	3.0	2.9	0.9	0.95
	4	SNT-4A	1.6	1.2	0.5	0.65
	6	SNT-6A	1.8	1.57	0.5	0.5
	6	SNT-6A(H)	1.8	1.57	0.5	0.5
	8	SNT-8A	2.46	1.97	0.5	0.5
	4	HSNT-4(0808)	0.8	0.8	0.4	0.4
	4	HSNT-4(0808)B	0.8	0.8	0.41	0.4
	4	HSNT-4(1010)	1.0	1.0	0.4	0.65
	4	HSNT-4(1010)B	1.0	1.0	0.41	0.65
	6	HSNT-6A	2.46	1.96	0.5	0.5
	6	HSNT-6(1212)	1.2	1.2	0.4	0.4
	6	HSNT-6D (HSNT-6(1618))	1.8	1.6	0.4	0.5
	6	HSNT-6(2025)	2.46	1.96	0.5	0.5
	8	HSNT-8(1616)	1.6	1.6	0.4	0.4
	8	HSNT-8(1616)B	1.6	1.6	0.41	0.4
	8	HSNT-8(2030)	3.0	2.0	0.5	0.5
	6	DFN-6(1414)A	1.4	1.4	0.6	0.5
	6	DFN-6(1518)A	1.8	1.5	0.33	0.5
	8	DFN-8(1616)A	1.6	1.6	0.6	0.4
	8	DFN-8(2020)A	2.0	2.0	0.6	0.5
	8	DFN-8(2030)	3.0	2.0	0.5	0.5
	8	DFN-8(2030)A	3.0	2.0	0.6	0.5
	8	DFN-8(2030)B	3.0	2.0	0.8	0.5

Remarks 1. For more details, please refer to our website. Package List on ablic.com

2. Please contact our sales representatives regarding WLP package products.