ACE25QA400GE
4M BIT SPI NOR FLASH

Description

The ACE25QA400GE is 4M-bit Serial Peripheral Interface (SPI) Flash memory, and supports the Dual SPI: Serial Clock, Chip Select, Serial Data I/O0 (SI), I/O1 (SO). The Dual Output data is transferred with speed of 108Mbits/s. The device uses a single low voltage power supply, ranging from 2.7 Volt to 3.6 Volt. Additionally, the device supports JEDEC standard manufacturer and device ID.

In order to meet environmental requirements, ACE Technology offers an SOP-8 150mil or 208mil, TSSOP-8 173mil, and USON3*2-8 packages.

Features

- Serial Peripheral Interface (SPI)

  Standard SPI: SCLK, /CS, SI, SO

  Dual SPI: SCLK, /CS, IO0, IO1

- Read

  Normal Read (Serial): 65MHz clock rate

  Fast Read (Serial): 120MHz clock rate

  Dual Read: 100MHz clock rate

- Program

  Serial-input Page Program up to 256 bytes

- Erase

  Block erase (64/32 KB)

  Sector erase (4 KB)

  Chip erase

- Program/Erase Speed

  Page Program time: 0.9ms typical

  Sector Erase time: 50ms typical

  Block Erase time: 0.15/0.25s typical

  Chip Erase time: 1.6s typical

- Flexible Architecture

  Sector of 4K-byte

  Block of 32/64K-byte

- Low Power Consumption

  6mA maximum active current

  1uA maximum power down current

- Software/Hardware Write Protection

  Write protect all/portion of memory via software

  Top or Bottom, Sector or Block selection

- Single Supply Voltage
  Full voltage range: 2.7~3.6V
- Temperature Range
  Commercial (-40°C to 85°C)
  Industrial (-40°C to 85°C)
  Industrial (-40°C to 105°C)
- Cycling Endurance/Data Retention
  Typical 100k Program-Erase cycles on any sector
  Typical 20-year data retention
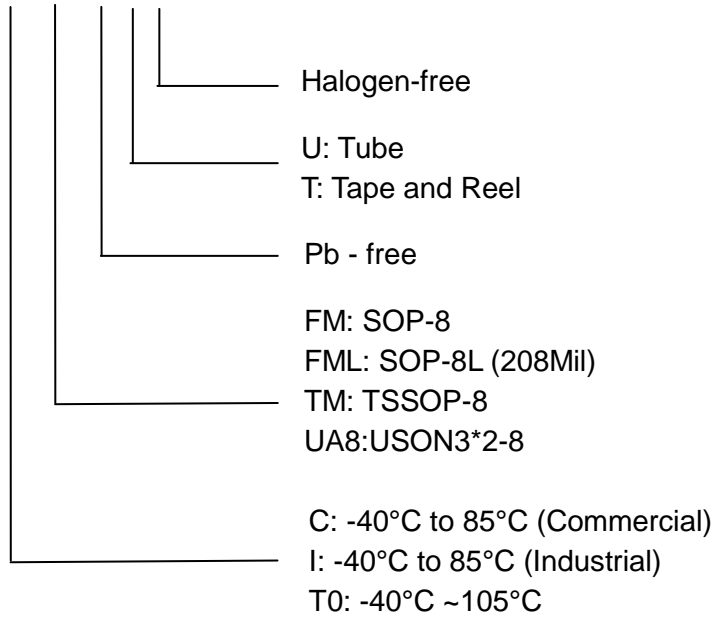- Advanced Feature
  128 bits Unique ID for each device

Ordering information

ACE25QA400GE <u>X</u> <u>XXX</u> + <u>X</u> H

Halogen-free

U: Tube
T: Tape and Reel

Pb - free

FM: SOP-8
FML: SOP-8L (208Mil)
TM: TSSOP-8
UA8:USON3*2-8

C: -40°C to 85°C (Commercial)
I: -40°C to 85°C (Industrial)
T0: -40°C ~105°C

Notes

ACE does not assume any responsibility for use as critical components in life support devices or systems without the express written approval of the president and general counsel of ACE Technology Co., LTD. As sued herein:

1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, and shoes failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury to the user.

2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

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