ACE25AW400E

4M bits Dual I/O Serial Flash Memory

Description

The ACE25AW400E Serial flash supports the standard Serial Peripheral Interface (SPI), and supports the Dual SPI: Serial Clock, Chip Select, Serial Data I/O0 (SI), I/O1 (SO). The Dual I/O data is transferred at a speed of 160Mbit/s.

Features

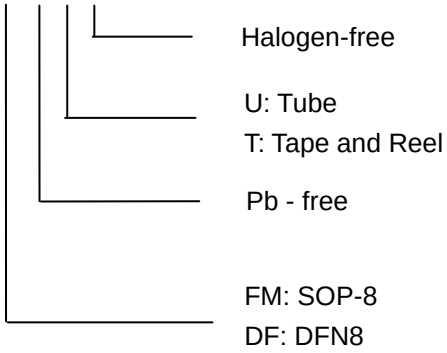
- 4M -bit Serial Flash
  - 512 K-byte
  - 256 bytes per programmable page
- Standard, Dual SPI
  - Standard SPI: SCLK, CS#, SI, SO
  - Dual SPI: SCLK, CS#, IO0, IO1
- Flexible Architecture
  - Sector of 4K-byte
  - Block of 32k-byte
  - Block of 64k-byte
- Software Write Protection
  - Write protect all/portion of memory via software
- Advanced security Features
  - 2*256-Byte Security Registers With OTP Lock
- Package Options
  - See 1.1 Available Ordering OPN
  - All Pb-free packages are compliant RoHS, Halogen-Free and REACH.
- Temperature Range & Moisture Sensitivity Level
  - Industrial Level Temperature. (-40°C to 85°C), MSL3
- Power Consumption
  - 30mA maximum active current
  - 5μA typical standby current
- Single Power Supply Voltage
  - 1.65~3.6V
- Support SFDP and 128 bits Unique ID
- Minimum 100,000 Program/Erase Cycle
- High Speed Clock Frequency
  - 96MHz for fast read with 30pF load
  - Dual I/O Data transfer up to 160Mbit/s
- Program/Erase Speed
  - Page Program time: 1.6ms typical
  - Sector Erase time: 75ms typical
  - Block Erase time: 0.4s/ 0.55s typical
  - Chip Erase time: 3.5s typical

Absolute Maximum Ratings

Parameter	Value	Unit
Ambient Operating Temperature	-40 to 85	℃
Storage Temperature	-65 to 150	℃
Output Short Circuit Current	200	mA
Applied Input/ Output Voltage	-0.5 to 4.0	V
VCC	-0.5 to 4.0	V

Ordering information

ACE25AW400E XX + X H



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.