



K24C32C

I²C-Compatible Serial E²PROM

Data Sheet Rev. 1.2

General Description

The K24C32C is a 32-Kbit I²C-compatible Serial EEPROM (Electrically Erasable Programmable Memory) device. It contains a memory array of 4096 × 8bits, which is organized in 32-byte per page.

K24C32C provides the following devices for different application.

Device Selection Table

Device Name	Voltage Range	Temp. Range	Max. Clock Frequency
K24C32C -MI	1.7V~5.5V	-40°C ~ 85°C	1MHz ^[1]
K24C32C -NK	1.8V~5.5V	-40°C~105°C	1MHz ^[1]
K24C32C -DE	2.5V~5.5V	-40°C~125°C	1MHz

Note 1: 400 kHz for V_{CC} < 2.5V.

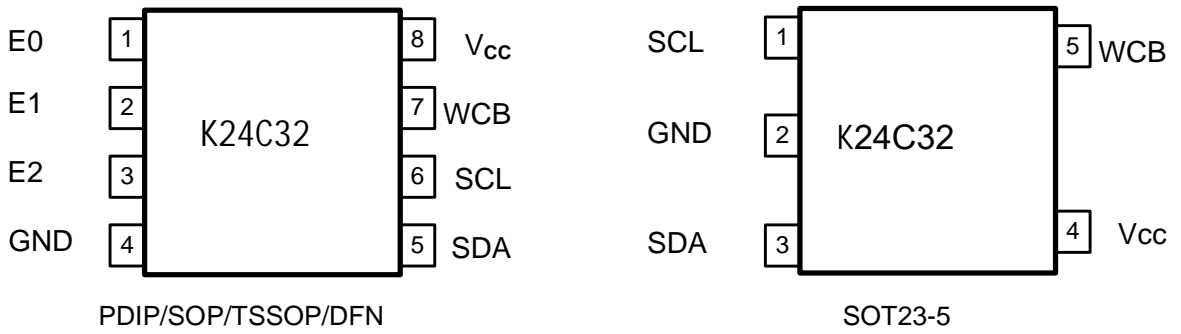
Features

- Single Supply Voltage and High Speed
 - ◇ Minimum operating voltage down to 1.7V
 - ◇ 1 MHz clock from 2.5V to 5.5V
 - ◇ 400kHz clock from 1.7V to 2.5V
- Low power CMOS technology
 - ◇ Read current 400uA, maximum
 - ◇ Write current 1.6mA, maximum
- Schmitt Trigger, Filtered Inputs for Noise Suppression
- Sequential & Random Read Features
- 32 byte Page Write Modes, Partial Page Writes Allowed
- Write protect of the whole memory array
- Additional Write Lockable Page
- Additional 128-bit Serial Number
- Self-timed Write Cycle (5ms maximum)
- High Reliability
 - ◇ HBM: > 6KV
 - ◇ Endurance: > 1 Million Write Cycles
 - ◇ Data Retention: > 100 Years
 - ◇ LATCH UP Capability: +/- 200mA
- Package: PDIP, SOP, TSSOP, DFN and SOT23-5

1. Pin Configuration

1.1 Pin Configuration

Figure 1-1 Pin Configuration



1.2 Pin Definition

Table 1-1 Pin Definition

Pin	Name	Type	Description
1	E0	I/O	Slave Address Setting
2	E1	Input	Slave Address Setting
3	E2	Input	Slave Address Setting
4	GND	Ground	Ground
5	SDA	I/O	Serial Data Input and Serial Data Output
6	SCL	Input	Serial Clock Input
7	WCB	Input	Write Control, Low Enable Write
8	V _{cc}	Power	Power