

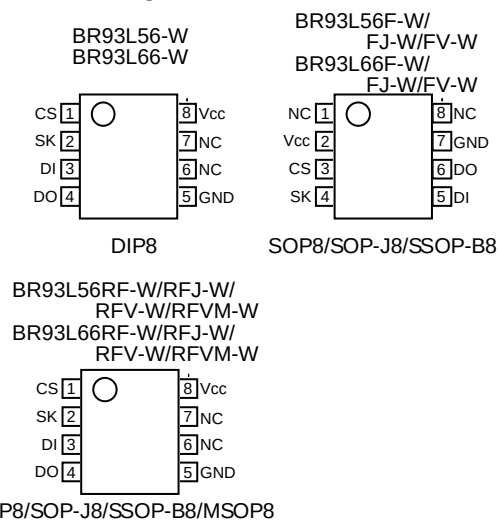
**BR93L56-W/F-W/RF-W/FJ-W/RFJ-W/FV-W
/RFV-W/RFVM-W**

**BR93L66-W/F-W/RF-W/FJ-W/RFJ-W/FV-W
/RFV-W/RFVM-W**

Features

- 2k bit serial EEPROM organized as $128 \times 16\text{bit}$ (BR93L56)
- 4k bit serial EEPROM organized as $256 \times 16\text{bit}$ (BR93L66)
- Low voltage operation
 - Read : 1.8~5.5V
 - Write : 1.8~5.5V
- Low current consumption
 - Active : 1.5mA MAX ($V_{cc}=1.8\sim 2.5\text{V}$)
 - 3mA MAX ($V_{cc}=2.5\sim 5.5\text{V}$)
 - Standby : $2\mu\text{A}$ MAX
- Clock frequency : 500kHz MAX ($V_{cc}=1.8\sim 2.5\text{V}$)
- 2MHz MAX ($V_{cc}=2.5\sim 5.5\text{V}$)
- Write cycle time : 5ms MAX
- Address auto-increment function during read operation
- Automatic erase-before-write function during write operation
- Inadvertent write protection function
 - Defaults to power up with write-disabled state
 - Software instructions for write-enable/disable
 - Inadvertent write protection at low voltage (V_{cc} Lock-out function)
- $\overline{\text{READY}}/\overline{\text{BUSY}}$ Status indicator function (DO pin)
- Schmitt trigger circuit & noise filter are built into SK, DI pin.
- TTL compatible input/output
- 1,000,000 write cycle typical
- 40 years data retention
- Operating temperature range : $-40\sim 85^{\circ}\text{C}$

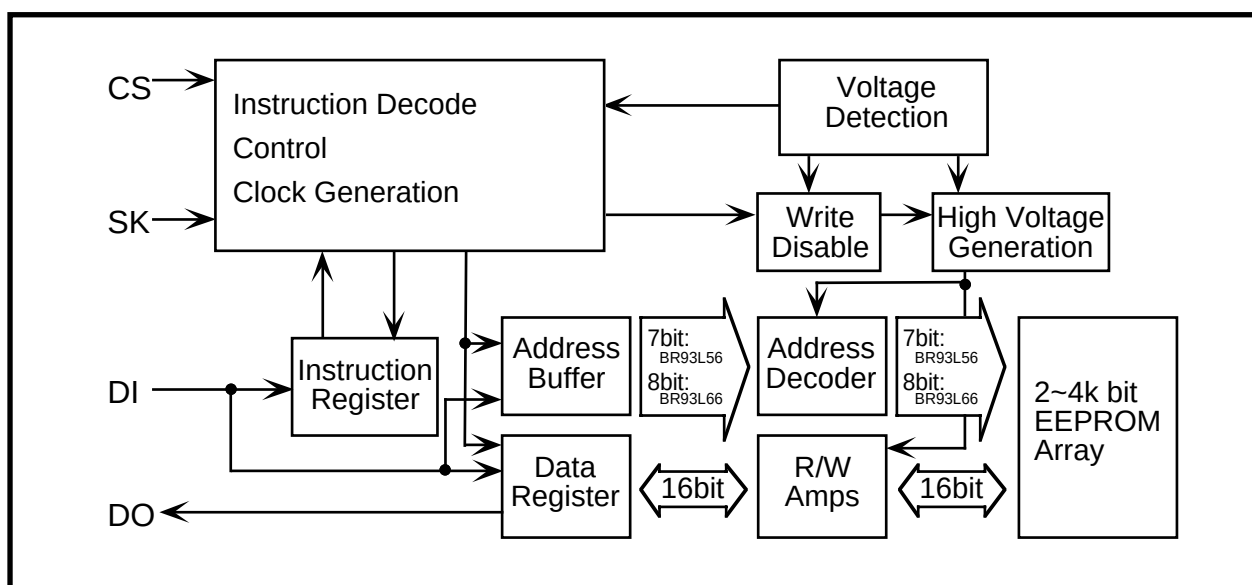
Pin Configurations



Pin Functions

Pin Names	Functions
CS	Chip Select
SK	Serial Data Clock
DI	Serial Data Input
DO	Serial Data Output
GND	Ground
Vcc	Power Supply

Block Diagram



ROHM EEPROM
1.8V Low voltage
operating

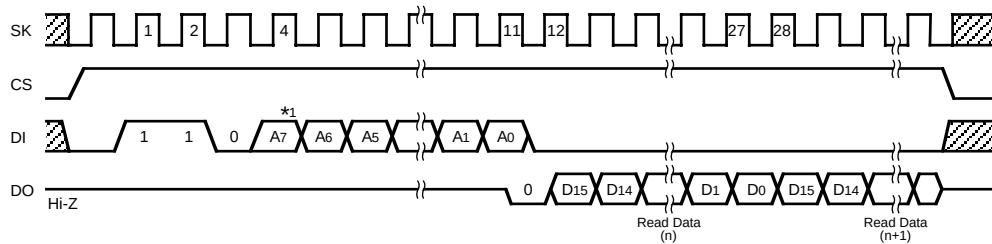
ROHM EEPROM
1,000,000
Write cycle

ROHM EEPROM
Double Cell

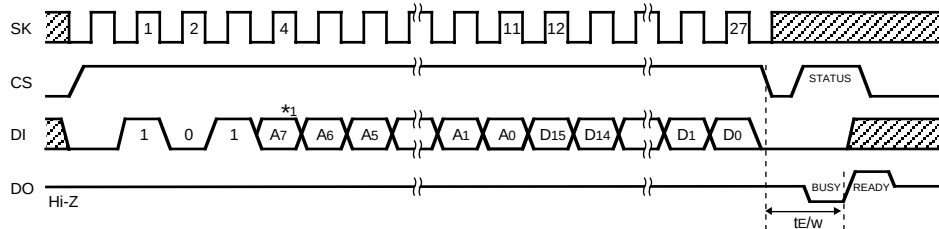
Serial 3 Wire Interface

Timing chart

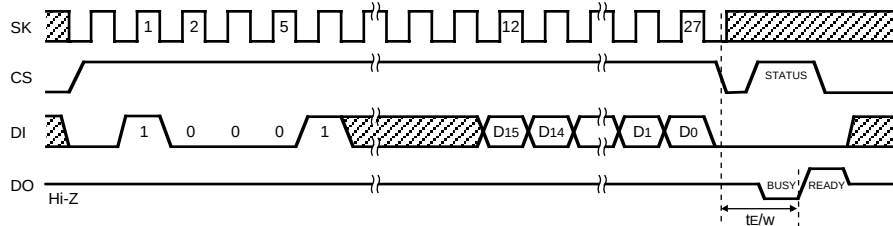
■ Read cycle



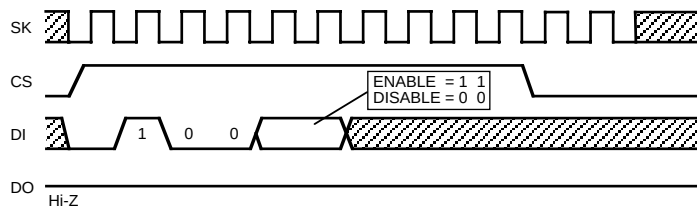
■ Write cycle



■ Write all registers cycle



■ Write enable / disable cycle



*1: A7=0 (BR93L56)

Note : BR93LC56/F/RF/FJ/RFJ/FV, BR93LC66/F/RF/FJ/RFJ/FV are single-cell types.
Please be careful not to confuse w-cell type and single-cell type. ("W" means double-cell type.)