

DALLAS
SEMICONDUCTOR

DS1200
Serial RAM Chip

FEATURES

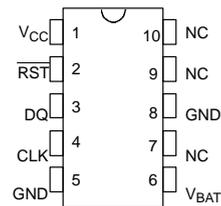
- 1024 bits of read/write memory
- Low data retention current for battery backup applications
- 4 million bits/second data rate
- Single byte or multiple byte data transfer capability
- No restrictions on the number of write cycles
- Low-power CMOS circuitry
- Applications include:
 - software authorization
 - computer identification
 - system access control
 - secure personnel areas
 - calibration
 - automatic system setup
 - traveling work record

DESCRIPTION

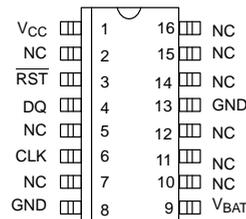
The DS1200 Serial RAM Chip is a miniature read/write memory which can randomly access individual 8-bit strings (bytes) or sequentially access the entire 1024-bit contents (burst). Interface cost to a microprocessor is minimized by on-chip circuitry which permits data transfers with only three signals: CLOCK, $\overline{\text{RST}}$, and DATA INPUT/OUTPUT.

Nonvolatility can be achieved by connecting a battery of 2 to 4 volts at the battery input V_{BAT} . A load of 0.5 μA

PIN ASSIGNMENT



10-Pin DIP (300 MIL)
See Mech. Drawings
Section



16-Pin SOIC (300 MIL)
See Mech. Drawings
Section

PIN DESCRIPTION

| | |
|-------------------------|---------------------|
| V_{CC} | – +5 Volts |
| $\overline{\text{RST}}$ | – RESET |
| DQ | – Data Input/Output |
| CLK | – Clock |
| GND | – Ground |
| V_{BAT} | – Battery (+) |
| NC | – No Connection |

should be used to size the external battery for the required data retention time. If nonvolatility is not required the V_{BAT} pin should be grounded.

For a complete description of operating conditions, electrical characteristics, bus timing, and signal descriptions other than V_{BAT} , see the DS1201 Electronic Tag 1024-Bit data sheet.