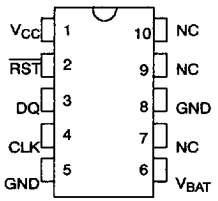
DALLAS SEMICONDUCTOR

DS1200
Serial RAM Chip

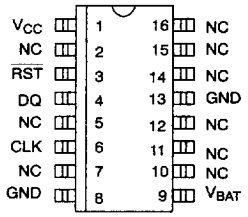
FEATURES

- 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

PIN ASSIGNMENT



10-Pin DIP (300 MIL)
See Mech. Drawing – Pg. 964



16-Pin SOIC (300 MIL)
See Mech. Drawing – Pg. 968

PIN DESCRIPTION

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

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, $\overline{RST}$, 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 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.