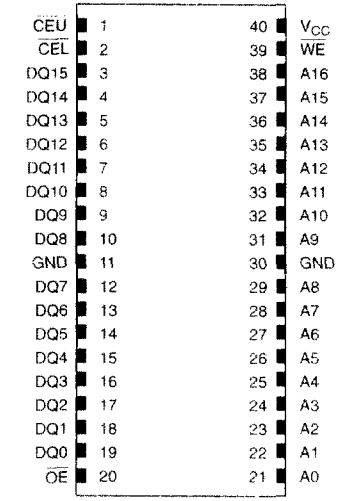
DALLAS SEMICONDUCTOR

DS1258Y/AB
128K x 16 Nonvolatile SRAM

FEATURES

- 10 year minimum data retention in the absence of external power
- Data is automatically protected during a power loss
- Separate upper byte and lower byte chip select inputs
- Unlimited write cycles
- Low–power CMOS
- Read and write access times as fast as 70 ns
- Lithium energy source is electrically disconnected to retain freshness until power is applied for the first time
- Full ±10% operating range (DS1258Y)
- Optional ±5% operating range (DS1258AB)

PIN ASSIGNMENT



40–PIN ENCAPSULATED PACKAGE
740 MIL EXTENDED

PIN DESCRIPTION

A0–A16	–	Address Inputs
DQ0–DQ15	–	Data In/Data Out
$\overline{CEU}$	–	Chip Enable Upper Byte
$\overline{CEL}$	–	Chip Enable Lower Byte
$\overline{WE}$	–	Write Enable
$\overline{OE}$	–	Output Enable
V_{CC}	–	Power Supply (+5V)
GND	–	Ground

DESCRIPTION

The DS1258 128K x 16 Nonvolatile SRAMs are 2,097,152–bit fully static, nonvolatile SRAMs, organized as 131,072 words by 16 bits. Each NV SRAM has a self–contained lithium energy source and control circuitry which constantly monitors V_{CC} for an out–of–tolerance condition. When such a condition occurs, the lithium energy source is automatically switched on and write protection is unconditionally enabled to prevent data corruption. DIP–package DS1258 devices can be used in place of solutions which build nonvolatile 128K x 16 memory by utilizing a variety of discrete components. There is no limit on the number of write cycles that can be executed and no additional support circuitry is required for microprocessor interfacing.