

FEATURES

- Adds timekeeping to any 32-pin JEDEC bytewise memory location
- Embedded lithium energy cell maintains calendar time for more than 10 years in the absence of power
- Timekeeping function is transparent to memory operation
- Keeps track of hundredths of seconds, seconds, minutes, hours, days, date of the month, months, and years
- Month and year determine the number of days in each month; leap year compensation valid up to 2100
- Lithium energy source is electrically disconnected to retain freshness until power is applied for the first time
- Proven gas-tight socket contacts
- Full $\pm 10\%$ V_{CC} operating range
- Operating temperature range 0°C to 70°C
- Accuracy is better than ± 1 minute/month @ 25°C

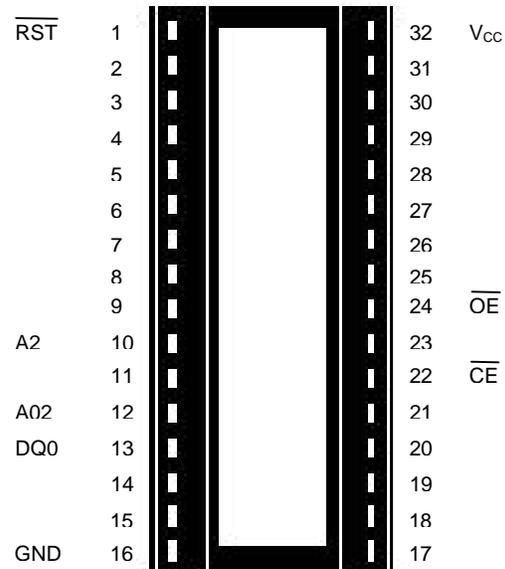
ORDERING INFORMATION

DS1216F 5 volt operation
DS1216F-3 3 volt operation

DESCRIPTION

The DS1216F SmartWatch/ROM is a 32-pin, 600-mil wide DIP socket with a built-in CMOS timekeeper and an embedded lithium energy source to maintain time and date. It accepts any 32-pin bytewise ROM or volatile RAM. A key feature of the SmartWatch is that the timekeeping function remains transparent to the memory device placed above. The SmartWatch monitors V_{CC} for an out-of-tolerance condition. When such a condition occurs, an internal lithium energy source automatically switches on to prevent loss of time and calendar data.

PIN ASSIGNMENT



32-Pin Intelligent Socket

PIN DESCRIPTION

- Pin 1 $\overline{\text{RST}}$ - RESET
 Pin 10 A2 - Address Bit 2(READ/ $\overline{\text{WRITE}}$)
 Pin 12 A0 - Address Bit 0 (Data Input)
 Pin 13 DQ0 - I/O₀ (Data Output)
 Pin 16 GND - Ground
 Pin 22 $\overline{\text{CE}}$ - Conditioned Chip Enable
 Pin 24 $\overline{\text{OE}}$ - Output Enable
 Pin 32 V_{CC} - Power Supply Input

All pins pass through to the socket except 22.

