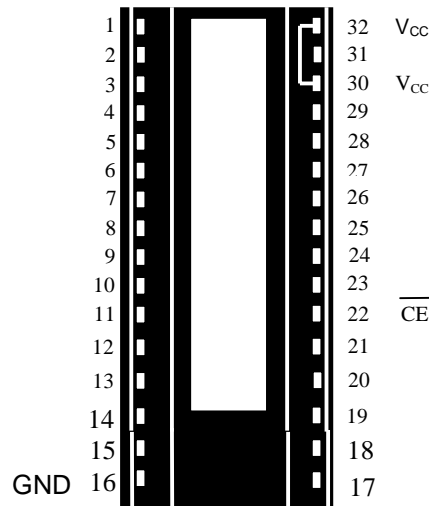


## FEATURES

- Accepts standard 32K x 8 or 128K x 8 CMOS static RAMs
- Embedded lithium energy cell retains RAM data
- Self-contained circuitry safeguards data
- Data retention time is greater than 10 years with the proper RAM selection
- IC socket permits upgrading from 32K x 8 to 128K x 8 RAM
- Proven gas-tight socket contacts
- Operating temperature range 0°C to 70°C

## PIN ASSIGNMENT



32-Pin Intelligent Socket

## PIN DESCRIPTION

- $\overline{\text{CE}}$  - Conditioned Chip Enable  
 $V_{\text{CC}}$  - Switched  $V_{\text{CC}}$   
 GND - Ground

All pins pass through except 22, 30 and 32.

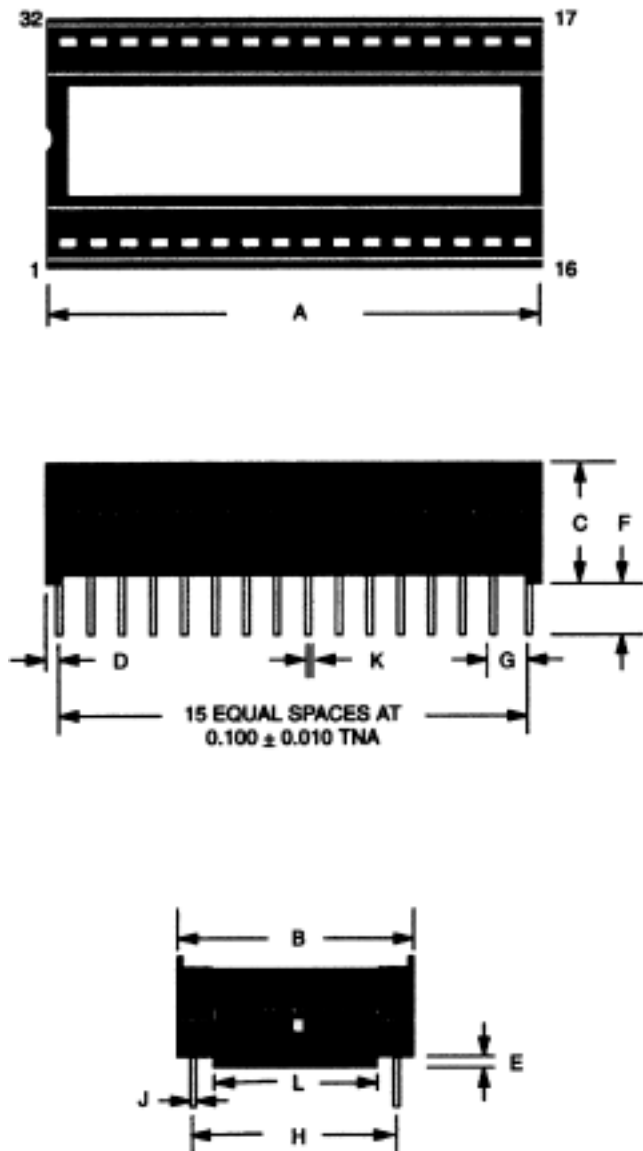
## DESCRIPTION

The DS1213D SmartSocket is a 32-pin, 600 mil DIP socket with a built-in CMOS controller circuit and an embedded lithium energy source. It accepts 32K x 8 or 128K x 8 JEDEC byte-wide CMOS static RAM. When the socket is mated with a CMOS RAM, it provides a complete solution to problems associated with memory volatility. The SmartSocket monitors incoming  $V_{\text{CC}}$  for an out-of-tolerance condition. When such a condition occurs, an internal lithium energy source is automatically switched on and write protection is unconditionally enabled to prevent data corruption. Using the SmartSocket saves printed circuit board space since the SRAM/SmartSocket combination occupies no more area than the SRAM alone. The SmartSocket uses only Pins 22, 30 and 32 for RAM control. All other pins are passed straight through.

See the DS1213B SmartSocket data sheet for technical details.

See Dallas Semiconductor Application Note 4 for modification instructions to allow use of 512K x 8 RAM with this part.

## DS1213D INTELLIGENT SOCKET 32-PIN (600 MIL DIP)



PKG	32-PIN	
DIM	MIN	MAX
A IN.	1.580	1.620
MM	40.13	41.15
B IN.	0.690	0.720
MM	17.53	18.29
C IN.	0.400	0.470
MM	10.16	11.94
D IN.	0.035	0.065
MM	0.89	1.65
E IN.	0.055	0.075
MM	1.39	1.90
F IN.	0.120	0.160
MM	3.04	4.06
G IN.	0.090	0.110
MM	2.29	2.79
H IN.	0.590	0.630
MM	14.99	16.00
J IN.	0.008	0.012
MM	0.20	0.30
K IN.	0.015	0.021
MM	0.38	0.53
L IN.	0.380	0.420
MM	9.65	10.67