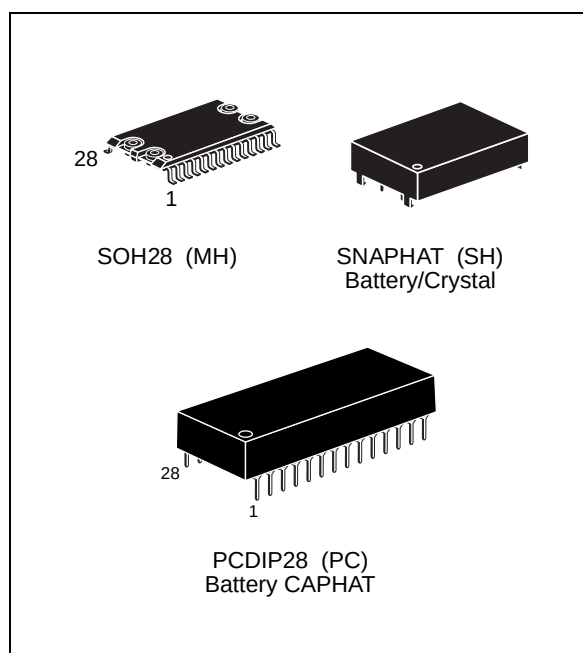


64Kb (8K x 8) ZEROPOWER® SRAM

DATA BRIEFING

- INTEGRATED ULTRA LOW POWER SRAM, POWER-FAIL CONTROL CIRCUIT and BATTERY
- UNLIMITED WRITE CYCLES
- READ CYCLE TIME EQUALS WRITE CYCLE TIME
- AUTOMATIC POWER-FAIL CHIP DESELECT and WRITE PROTECTION
- WRITE PROTECT VOLTAGES (V_{PFD} = Power-fail Deselect Voltage):
 - M48Z08: $4.50V \leq V_{PFD} \leq 4.75V$
 - M48Z18: $4.20V \leq V_{PFD} \leq 4.50V$
- SELF-CONTAINED BATTERY in the CAPHAT DIP PACKAGE
- PACKAGING INCLUDES a 28 LEAD SOIC and SNAPHAT® TOP (to be Ordered Separately)
- SOIC PACKAGE PROVIDES DIRECT CONNECTION for a SNAPHAT TOP which CONTAINS the BATTERY
- PIN and FUNCTION COMPATIBLE with the DS1225 and JEDEC STANDARD 8K x 8 SRAMS



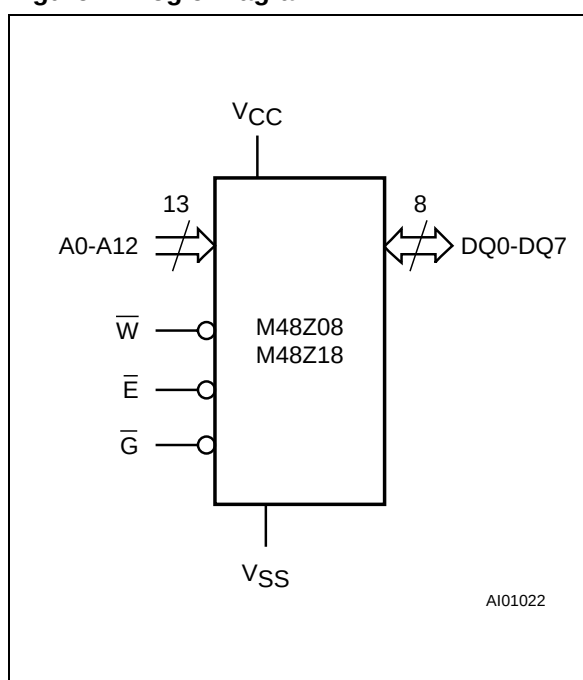
DESCRIPTION

The M48Z08/18 ZEROPOWER® RAM is an 8K x 8 non-volatile static RAM which is pin and functional compatible with the DS1225. The monolithic chip is available in two special packages to provide a highly integrated battery backed-up memory solution.

The M48Z08/18 is a non-volatile pin and function equivalent to any JEDEC standard 8K x 8 SRAM. It also easily fits into many ROM, EPROM, and EEPROM sockets, providing the non-volatility of PROMs without any requirement for special write timing or limitations on the number of writes that can be performed.

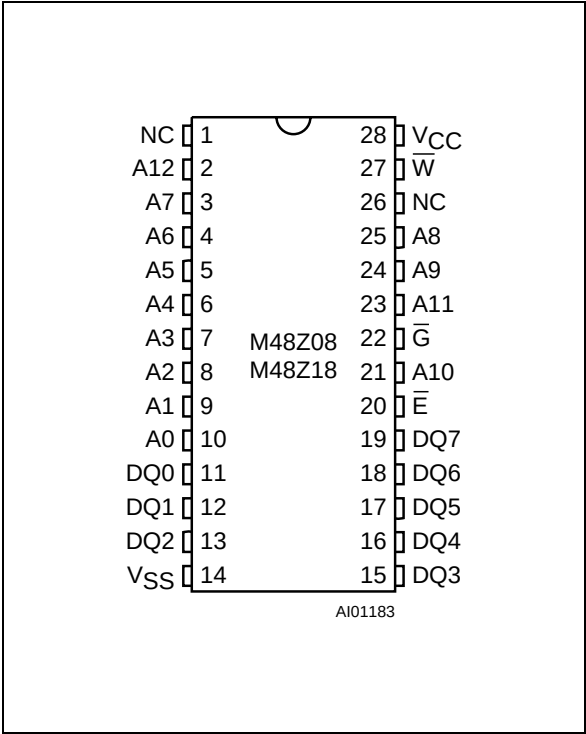
The 28 pin 600mil DIP CAPHAT™ houses the M48Z08/18 silicon with a long life lithium button cell in a single package.

Figure 1. Logic Diagram



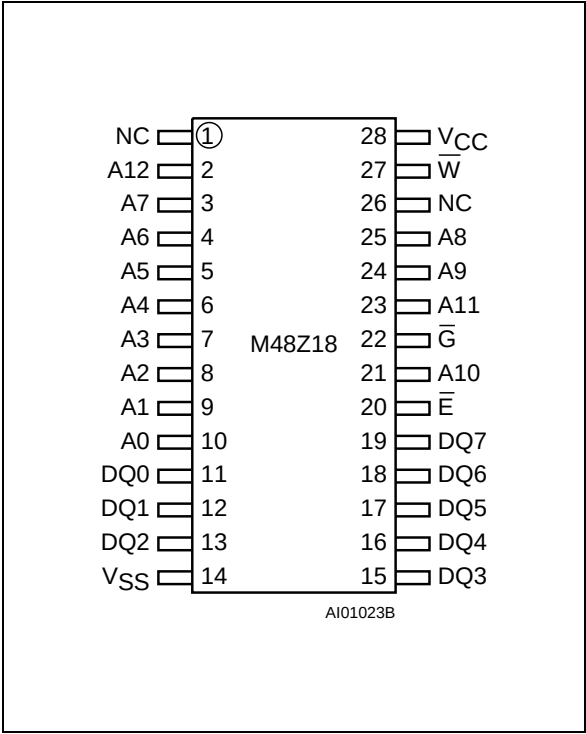
M48Z08, M48Z18

DIP Pin Connections



Warning: NC = Not Connected.

SOIC Pin Connections



Warning: NC = Not Connected.

Signal Names

A0-A12	Address Inputs
DQ0-DQ7	Data Inputs / Outputs
$\overline{E}$	Chip Enable
$\overline{G}$	Output Enable
$\overline{W}$	Write Enable
V _{CC}	Supply Voltage
V _{SS}	Ground

Ordering Information Scheme

For a list of available options or for further information on any aspect of this device, please contact the SGS-THOMSON Sales Office nearest to you.

Example: M48Z18 -100 MH 1 TR

Supply Voltage and Write Protect Voltage	
08 ⁽¹⁾	V _{CC} = 4.75V to 5.5V V _{PFD} = 4.5V to 4.75V
18	V _{CC} = 4.5V to 5.5V V _{PFD} = 4.2V to 4.5V
Speed	
-100	100 ns
Package	
PC	PCDIP28
MH ⁽²⁾	SOH28
Temperature Range	
1	0 to 70 °C
6 ⁽³⁾	-40 to 85 °C
Shipping Method for SOIC	
blank	Tubes
TR	Tape & Reel

- Notes:** 1. The M48Z08 part is offered with the PCDIP28 (i.e. CAPHAT) package only.
2. The SOIC package (SOH28) requires the battery package (SNAPHAT) which is ordered separately under the part number "M4Z28-BR00SH1" in plastic tube or "M4Z28-BR00SH1TR" in Tape & Reel form.
3. Temperature range available for M48Z18 product only.

Caution: Do not place the SNAPHAT battery package "M4Z28-BR00SH1" in conductive foam since this will drain the lithium button-cell battery.