

64K (8K x 8) TIMEKEEPER[®] SRAM

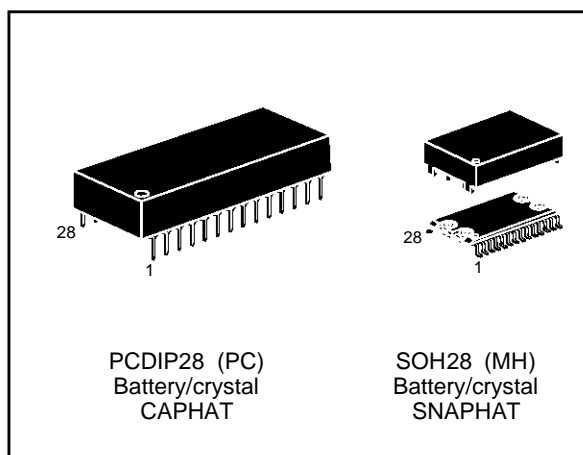
DATA BRIEFING

- INTEGRATED ULTRA LOW POWER SRAM, REAL TIME CLOCK, POWER-FAIL CONTROL CIRCUIT and BATTERY
- BYTEWIDE™ RAM-LIKE CLOCK ACCESS
- BCD CODED YEAR, MONTH, DAY, DATE, HOURS, MINUTES and SECONDS
- TYPICAL CLOCK ACCURACY of ± 1 MINUTE a MONTH, @ 25°C
- SOFTWARE CONTROLLED CLOCK CALIBRATION for HIGH ACCURACY APPLICATIONS
- AUTOMATIC POWER-FAIL CHIP DESELECT and WRITE PROTECTION
- TWO WRITE PROTECT VOLTAGES (V_{PFD} = Power-fail Deselect Voltage):
 - M48T08: $4.5V \leq V_{PFD} \leq 4.75V$
 - M48T18: $4.2V \leq V_{PFD} \leq 4.5V$
- SELF-CONTAINED BATTERY and CRYSTAL in the CAPHAT DIP PACKAGE
- SOIC PACKAGE PROVIDES DIRECT CONNECTION for a SNAPHAT HOUSING CONTAINING the BATTERY and CRYSTAL
- SNAPHAT[®] HOUSING (BATTERY and CRYSTAL) is REPLACEABLE
- 10 YEARS of DATA RETENTION and CLOCK OPERATION in the ABSENCE of POWER
- PIN and FUNCTION COMPATIBLE with DS1643 and JEDEC STANDARD 8K x 8 SRAMs

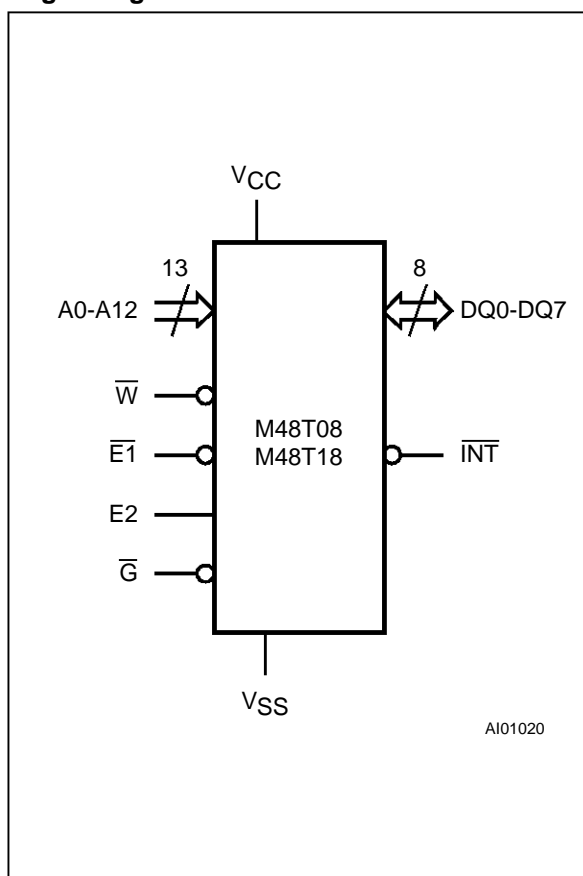
DESCRIPTION

The M48T08/18 TIMEKEEPER[®] RAM is an 8K x 8 non-volatile static RAM and real time clock which is pin and functional compatible with the DS1643. The monolithic chip is available in two special packages to provide a highly integrated battery backed-up memory and real time clock solution.

The M48T08/18 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.

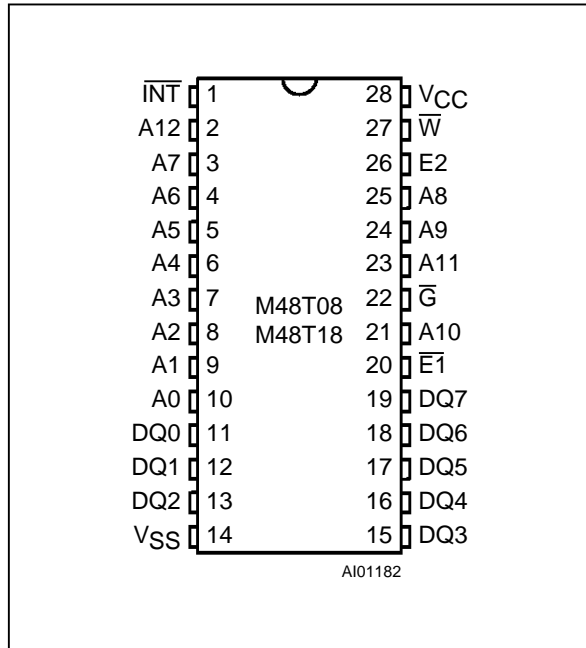


Logic Diagram

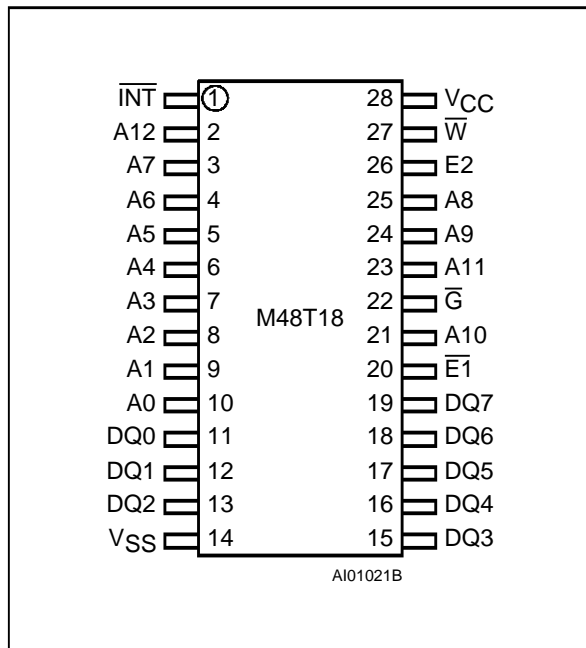


M48T08, M48T18

DIP Pin Connections



SOIC Pin Connections



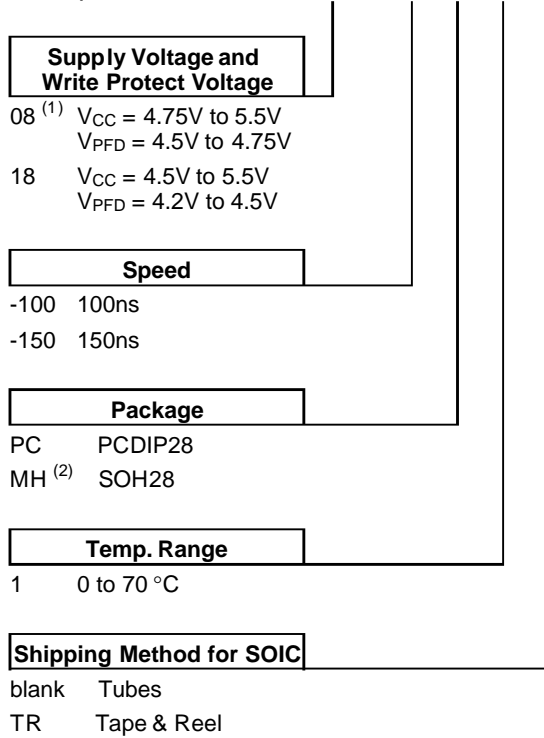
Signal Names

A0-A12	Address Inputs
DQ0-DQ7	Data Inputs / Outputs
$\overline{\text{INT}}$	Power Fail Interrupt
$\overline{\text{E1}}$	Chip Enable 1
E2	Chip Enable 2
$\overline{\text{G}}$	Output Enable
$\overline{\text{W}}$	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: M48T18 -100 MH 1 TR



Notes: 1. The M48T08 part is offered with the PCDIP28 (i.e. CAPHAT) package only.
2. The SOIC package (SOH28) requires the battery/crystal package (SNAPHAT) which is ordered separately under the part number "M4T28-BR12SH1" in plastic tube or "M4T28-BR12SH1TR" in Tape & Reel form.

Caution: Do not place the SNAPHAT battery/crystal package "M4T28-BR12SH1" in conductive foam since this will drain the lithium button-cell battery.