

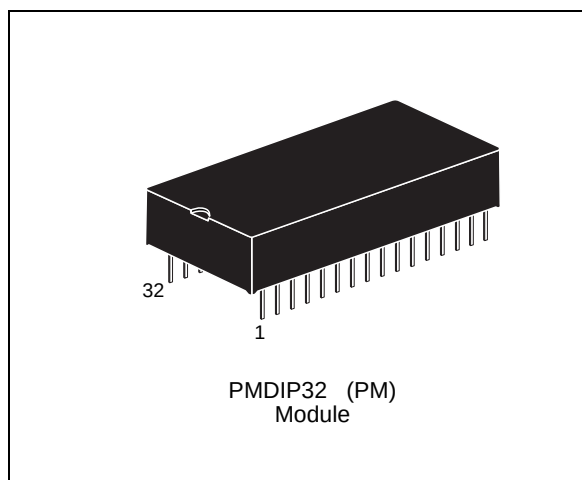
256Kb (32K x 8) TIMEKEEPER[®] SRAM

PRELIMINARY DATA

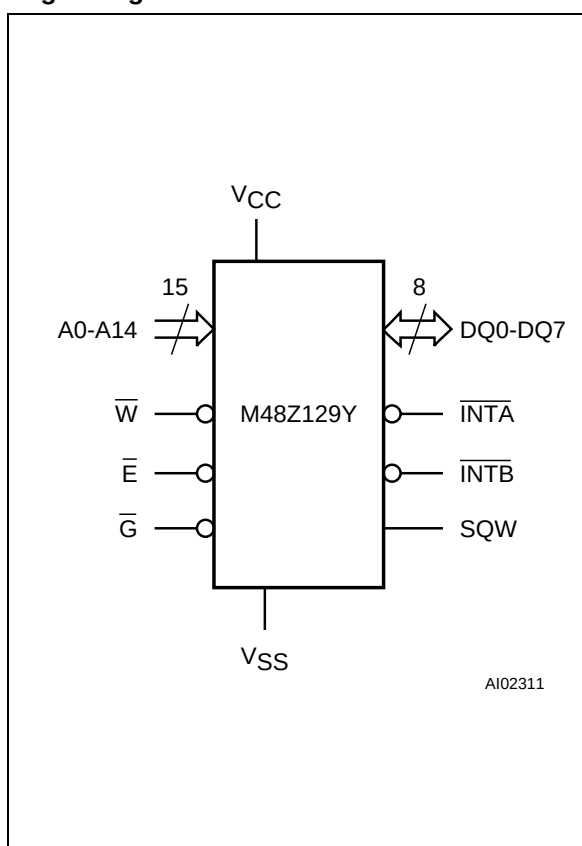
- INTEGRATED ULTRA LOW POWER SRAM, REAL TIME CLOCK, POWER-FAIL CONTROL CIRCUIT, BATTERY and CRYSTAL
- BCD CODED YEAR, MONTH, DAY, DATE, HOURS, MINUTES and SECONDS
- AUTOMATIC POWER-FAIL CHIP DESELECT and WRITE PROTECTION
- WRITE PROTECT VOLTAGE (V_{PFD} = Power-fail Deselect Voltage):
 - M48T39Y: $4.20V \leq V_{PFD} \leq 4.50V$
- PROGRAMMABLE INTERRUPTS and SQUARE WAVE OUTPUT
- WATCHDOG TIMER RESTARTS on OUT-OF-CONTROL PROCESSOR
- CLOCK ACCURACY IS BETTER THAN ± 1 MINUTE per MONTH at 25 °C
- 10 YEARS of DATA RETENTION and CLOCK OPERATION in the ABSENCE of POWER
- SELF-CONTAINED BATTERY and CRYSTAL in DIP PACKAGE
- PROGRAMMABLE ALARM OUTPUT ACTIVE in the BATTERY BACK-UP MODE
- PIN and FUNCTION COMPATIBLE with DS1386

DESCRIPTION

The M48T39Y TIMEKEEPER[®] RAM is a non-volatile 262,144 bit static RAM and real time clock organized as 32,768 words by 8 bits. System integration features include Programmable Alarms, Watchdog Timer and Interval Timer. The special 32-pin DIP package provides a highly integrated battery back-up memory and real time clock solution.

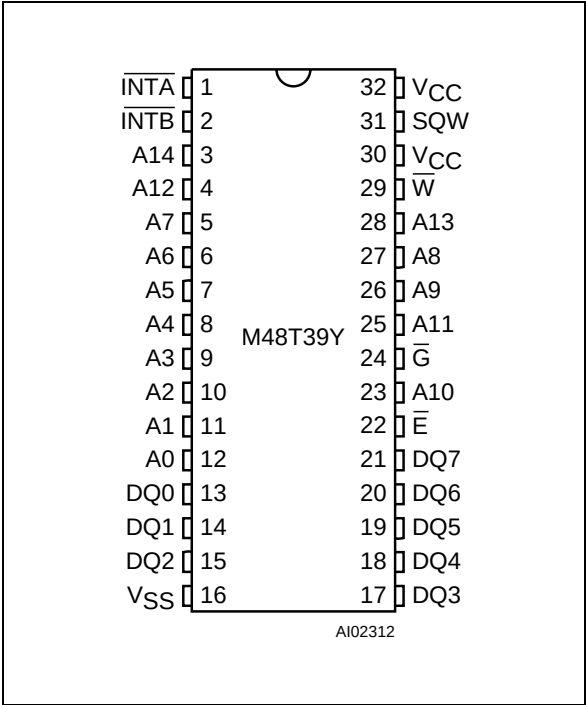


Logic Diagram



M48T39Y

DIP Pin Connections



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: M48T39Y -100 PM 1

Supply Voltage and Write Protect Voltage	
39Y V _{CC} = 4.50V to 5.50V V _{PFD} = 4.20V to 4.50V	
Speed	
-100 100ns	
-150 150ns	
Package	
PM PMDIP32	
Temperature Range	
1 0 to 70 °C	

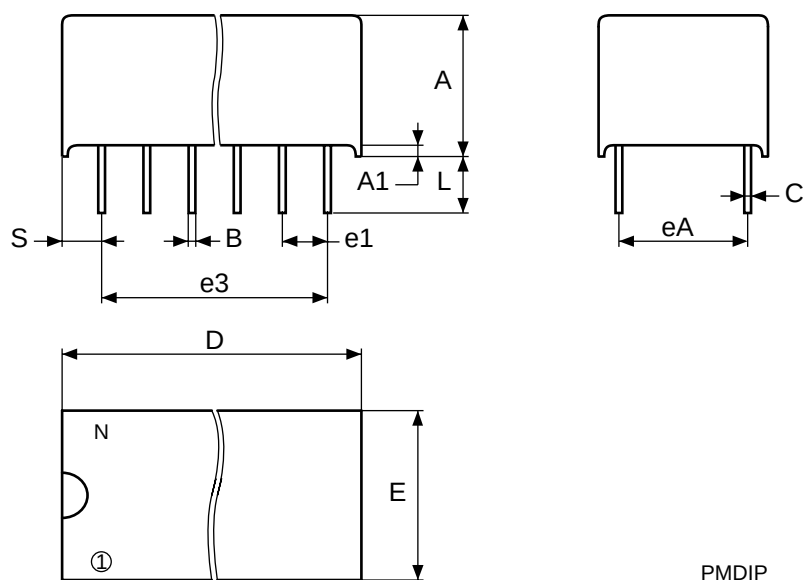
Signal Names

A0-A14	Address Inputs
DQ0-DQ7	Data Inputs / Outputs
$\overline{E}$	Chip Enable Input
$\overline{G}$	Output Enable Input
$\overline{W}$	Write Enable Input
$\overline{INTA}$	Interrupt Output A (Open Drain)
$\overline{INTB}$	Interrupt Output B (Open Drain)
SQW	Square Wave Output
V _{CC}	Supply Voltage
V _{SS}	Ground

PMDIP32 - 32 pin Plastic DIP Module

Symb	mm			inches		
	Typ	Min	Max	Typ	Min	Max
A		9.27	9.52		0.365	0.375
A1		0.38	–		0.015	–
B		0.43	0.59		0.017	0.023
C		0.20	0.33		0.008	0.013
D		42.42	43.18		1.670	1.700
E		18.03	18.80		0.710	0.740
e1		2.30	2.81		0.090	0.110
e3		34.43	42.08		1.355	1.656
eA		14.99	16.00		0.590	0.630
L		3.05	3.81		0.120	0.150
S		1.91	2.79		0.075	0.110
N		32			32	

PMDIP32



Drawing is not to scale.

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