

## Unbuffered Small Outline Memory Module Data Sheet

# MW01GN8026SA8

1 GByte, DDR2, PC2-6400 (800 MHz) CL6 200 Pin SO-DIMM

### Description:

**MW01GN8026SA8** is a 1 Gigabyte Memory Module, organized as 128Mx64 bits DDR2-SDRAM. Each module is composed by eight 128Mx8 DDR2-SDRAMs ICs in FBGA package and one serial EEPROM for SPD (Serial Presence Detect), mounted on a JEDEC-Standard 200-pin SO-DIMM (Small Outline Dual-In-Line Memory Module) with golden contacts.

### Features:

- 200-pin SO-DIMM outline, unbuffered
- Double Data Rate architecture; two data transfers per clock cycle
- On-Die Termination Control
- Uses 128Mx8 DDR2-SDRAMs
- Differential clock inputs
- Programmable burst length: 4 or 8
- Clock Cycle Time:  
( $t_{CK}$ ) = 2.50 ns (min.) / 8 ns (max.) @ CL=6
- EEPROM Serial Presence Detection (SPD)
- Bi-directional, differential data strobe (DQS and /DQS)
- Four internal device banks for concurrent operation
- Auto Refresh to Active ( $t_{RFC}$ ): 127.5ns (min)
- Auto precharge
- Auto-refresh and Self-refresh modes
- Row address  $A_0$ - $A_{13}$
- Column address  $A_0$ - $A_9$
- SSTL\_18 Interface
- VDD = VDDQ = 1.8 V  $\pm$  0.1 V

### Specification:

Symbol	AC Characteristic	Min.	Max.	Unit
$t_{CK}$	CLK Cycle Time MW01G8026SA8 CL=6	2500	8000	ps
$t_{RC}$	Row Cycle Time (Operation)	60	-	ns
$t_{RAS}$	Row Active Time	45	70,000	ns
$t_{RFC}$	Auto Refresh to Active / Auto Refresh Command Time	127.5	-	ns

### Ratings:

	Rating	Unit	Condition
Power Dissipation, Operating (Bank Active, Precharge) @VDD, VDDQ = 1.8V	1.224	W	Ta=25°C
Operating temperature <sup>1</sup>	0 ~ 85	°C	-
Storage temperature	-55 ~ 100	°C	-

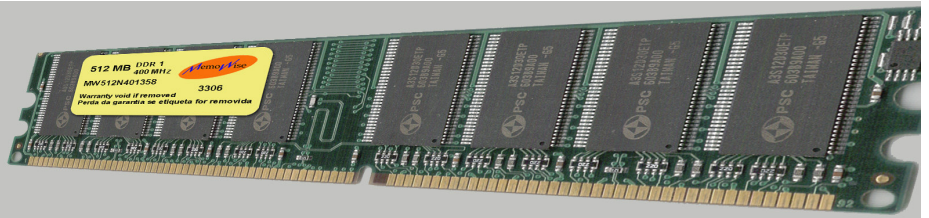
Note:

1. It refers to the operating case temperature of DRAM ICs

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### WARNING: DO NOT USE IN LIFE SUPPORT

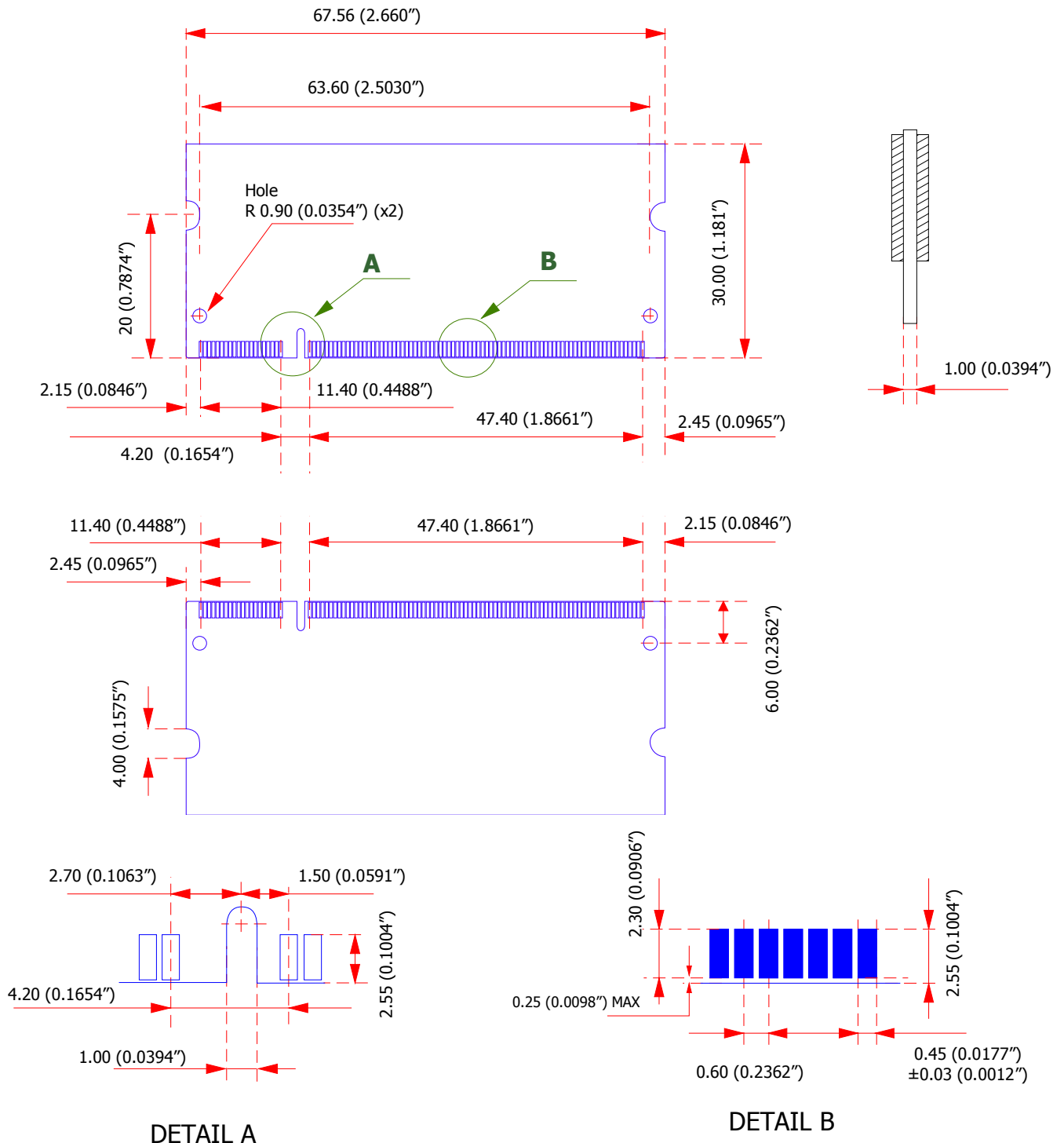
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## Dimensions

All dimensions are in millimeters (Inches); tolerance is  $\pm 0.1$  (0.0039") unless otherwise indicated



DETAIL A

DETAIL B