

## Unbuffered Small Outline Memory Module Data Sheet

# MW02GN6625SA8

2 GBytes, DDR2, PC2-5300 (667 MHz) CL5 200 Pin SO-DIMM

### Description:

**MW02GN6625SA8** is a 2 Gigabyte Memory Module, organized as 256Mx64 bits DDR2-SDRAM. Each module is composed by sixteen 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:
  - $(t_{CK}) = 3.00 \text{ ns (min.)} / 8 \text{ ns (max.)} @ \text{CL}=5$
- 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  $A_0-A_9$
- Bank address  $BA_0 \sim BA_2$
- SSTL\_18 Interface
- $VDD = VDDQ = 1.8 \text{ V} \pm 0.1 \text{ V}$

### Specification:

Symbol	AC Characteristic		Min.	Max.	Unit
$t_{CK}$	CLK Cycle Time	MW02G6625SA8 CL=5	3000	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 (1Bank Active, Precharge 1 Bank Idle) @VDD, VDDQ = 1.8V	1.728	W	Ta=25°C
Operating temperature <sup>1</sup>	0 ~ 85	°C	-
Storage temperature	-55 ~ 100	°C	-

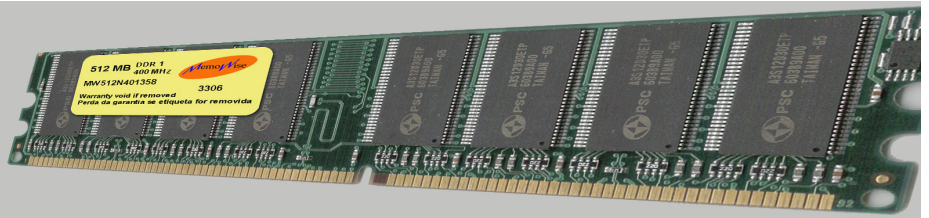
Note:

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

All values in this data-sheet are subject to change without notice. No responsibility is assumed by MemoWise for the use of information included herein, nor for any infringements of patents or other rights belonging to third parties which may result from their use.

### WARNING: DO NOT USE IN LIFE SUPPORT

MEMOWISE PRODUCTS ARE NOT AUTHORIZED FOR USE AS CRITICAL COMPONENTS IN LIFE SUPPORT DEVICES OR SYSTEMS WITHOUT THE EXPRESS WRITTEN APPROVAL OF MEMOWISE TECNOLOGIA INDÚSTRIA ELETRÔNICA LTDA.



# Unbuffered Small Outline Memory Module Data Sheet — MW02GN6625SA8

## Dimensions

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

