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# MVM4256

256K x 4 Monolithic CMOS VideoRAM

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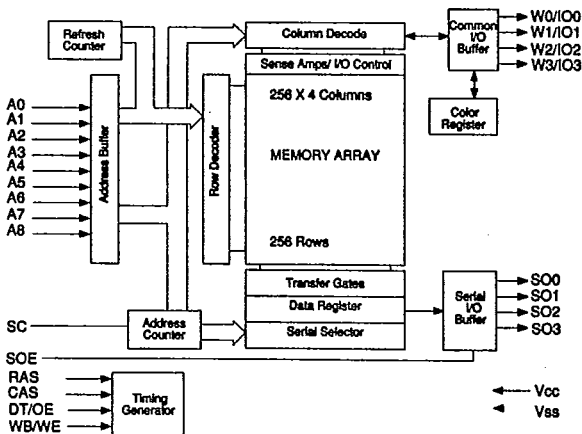
## ADVANCE PRODUCT INFORMATION

262,144 x 4 CMOS VIDEO RAM

### Features

- Row Access Times of 100/120/150 nS
- Serial Access Times of 35/40/60 nS
- Standard JEDEC 28 pin DIL Footprint
- Read Transfer and Write Transfer
- Directly TTL Compatible
- Low Power Standby 40mW
- Low Power Operation 385mW
- Fast Page Mode
- Hidden Refresh/ CAS before RAS refresh
- 512 cycles/8ms Refresh
- Common Data Inputs & Outputs
- May be Processed to MIL-STD-883C(suffix MB)

### Block Diagram



### Pin Definition

Package Type:TBD,'V'

|                 |    |  |    |        |
|-----------------|----|--|----|--------|
| SC              | 1  |  | 28 | GND    |
| SO0             | 2  |  | 27 | SO3    |
| SO1             | 3  |  | 26 | SO2    |
| DT/OE           | 4  |  | 25 | SOE    |
| W0/IO0          | 5  |  | 24 | W3/IO3 |
| W1/IO1          | 6  |  | 23 | W2/IO2 |
| WB/WE           | 7  |  | 22 | NC     |
| NC              | 8  |  | 21 | CAS    |
| RAS             | 9  |  | 20 | NC     |
| A8              | 10 |  | 19 | A0     |
| A6              | 11 |  | 18 | A1     |
| A5              | 12 |  | 17 | A2     |
| A4              | 13 |  | 16 | A3     |
| V <sub>CC</sub> | 14 |  | 15 | A7     |

### Pin Functions

- A0-A14 Address Inputs
- W0/IO0- W03/IO3 Write-per-bit Select/ Data Input/Output
- RAS Row Address Select
- CAS Column Address Select
- WB/WE Write per bit/Write Enable
- DT/OE Data Transfer/Output Enable
- SO0-SO3 Serial Read Outputs
- SC Serial Control
- SOE Serial Output Enable
- NC No Connect
- V<sub>CC</sub> Power (+5V)
- GND Ground



### Package Details

| Pin Count | Description                   | Package Type | Material | Pin Out |
|-----------|-------------------------------|--------------|----------|---------|
| 28        | Dual-in-Line(DIP)             | TBD          | Ceramic  | JEDEC   |
| 28        | 100 mil Vertical-in-Line(VIL) | V            | Ceramic  | JEDEC   |

Package dimensions and details on page 2-128.  
 VIL is a trademark of Mosaic Semiconductor Inc., Patent Pending #287982.

**Military Screening Procedure**

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Monolithic Screening Flow for high reliability product, suffix MB, is in accordance with Mil-883C method 5004 and is detailed below:

| <b>MB COMPONENT SCREENING FLOW</b>      |  |              |
|---|--|--------------|
| <b>SCREEN</b>                           | <b>TEST METHOD (Per MIL 883C)</b>                | <b>LEVEL</b> |
| <b>Visual and Mechanical</b>            |  |              |
| Internal visual                         | 2010 Condition B or manufacturers equivalent     | 100%         |
| High-temperature storage                | 1008 Condition C (24hrs @ 150°C)                 | 100%         |
| Temperature Cycle                       | 1010 Condition C (10 Cycles, -65°C to 150°C)     | 100%         |
| Constant acceleration                   | 2001 Condition E (Y axis only), (30,000g)        | 100%         |
| Pre-Burn-in electrical                  | Per applicable device specification @ Ta+25°C    | 100%         |
| Burn-in                                 | Method 1015, Condition D, Ta+125°C, 160 hrs min. | 100%         |
| <b>Final Electrical Tests</b>           | Per applicable device specification              |              |
| Static (dc)                             | a) @ Ta=25°C and power supply extremes           | 100%         |
|   | b) @ temperature and power supply extremes       | 100%         |
| Functional                              | a) @ Ta=25°C and power supply extremes           | 100%         |
|   | b) @ temperature and power supply extremes       | 100%         |
| Switching (ac)                          | a) @ Ta=25°C and power supply extremes           | 100%         |
|   | b) @ temperature and power supply extremes       | 100%         |
| <b>Percent Defective Allowable(PDA)</b> | Calculated at post-burn-in @ Ta=25°C             | 5%           |
| <b>Hermeticity</b>                      |  |              |
| Fine                                    | 1014 Condition A                                 | 100%         |
| Gross                                   | Condition C                                      | 100%         |
| <b>External Visual</b>                  | 2009 Per vendor or customer specification        | 100%         |

**Ordering Information**

**MVM4256VI-10**

|                       |  |
|-----------------------|--|
| Speed                 | 100,120,150 nS   |
| Temp. range/screening | Blank = Commercial Temp.<br>I = Industrial Temp.<br>M = Military Temp.<br>MB = Processed to MIL STD 883C |
| Power Consumption     | Blank = Standard Power Part<br>L = Low Power Part  |
| Package               | TBD = 28 pin DIP<br>V = 28 pin 100 mil VIL   |