MEMORY MODULE
EEPROM 256Kx8-SOP

EEPROM MODULE

3D EE2M08VS2154
2Mbit EEPROM organized as 256Kx8, based on 128Kx8

Features

- Organized as two banks of 128Kx8bit.
- 3.3V Single power Supply : 2.7 to 5V
- Access time 250ns (max).
- Power dissipation :
  - Active 20mW/MHz (typ).
  - Standby 400µW (max).
- On-chip latches : address, data, #CE, #OE, #WE.
- Automatic byte write : 15ms (max).
  Automatic page write (128 bytes) : 15ms (max).
- Data polling and RDY / #Busy.
- Reliable CMOS with MNOS cell technology
- 10^4 erase/write cycles (in page mode).
- 10 years data retention.
- Software data protection.
- Write protection by #RES pin.
- Available Temperature Range :
  - 0°C to +70°C
  - -40°C to +85°C
  - -55°C to +125°C
- Available with screening option for high reliability application
  (Space, etc...).

General description

The 3D EE2M08VS2154 is a 262,144 words of 8-bits. Electrically Erasable and Programmable CMOS ROM.
It is organized as two banks of 1Mbit (128Kx8).
Each bank has 8-bit interface and is selected with specific #CE.
All other signals are common to the two 1Mbit EEPROM.
Each Bank operates at high speed, low power consumption
and high reliability by employing advanced MNOS memory
technology and CMOS process and circuitry technology.
The device is manufactured using 3D PLUS well known MCM-V
patented technology.
It is particularly well suited for use in high reliability, high
performance and high density system applications.
The 3D EE2M08VS2154 is packaged in a 40 pins SOP.
MEMORY MODULE
EERom 256Kx8-SOP

EERom MODULE

3D EE2M08VS2154
2Mbit EEPROM organized as 256Kx8, based on 128Kx8

Mechanical Drawing

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Symbol</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply voltage</td>
<td>VCC</td>
<td>3.0</td>
<td>3.3</td>
<td>3.6</td>
<td>V</td>
</tr>
<tr>
<td>Input logic high voltage</td>
<td>VIL</td>
<td>-0.3</td>
<td>-</td>
<td>0.8</td>
<td>V</td>
</tr>
<tr>
<td>Output logic high Voltage</td>
<td>VOL</td>
<td>-</td>
<td>-</td>
<td>0.4</td>
<td>V</td>
</tr>
</tbody>
</table>

Test Tools

3D EE2M08VS2154
ENPLAS OTS - 40-0-5-01 Modified by 3D PLUS

DC Operating conditions and characteristics

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Symbol</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage on any pin relative to VSS</td>
<td>Vt</td>
<td>-0.5</td>
<td>-7.0</td>
<td>V</td>
<td></td>
</tr>
<tr>
<td>Storage temperature</td>
<td>TSTG</td>
<td>-55</td>
<td>+125</td>
<td>°C</td>
<td></td>
</tr>
<tr>
<td>Junction Temperature</td>
<td>TJ</td>
<td>150</td>
<td></td>
<td>°C</td>
<td></td>
</tr>
<tr>
<td>Thermae Resistance, Junction-to-Case</td>
<td>θJC</td>
<td>5</td>
<td></td>
<td>°C/W</td>
<td></td>
</tr>
<tr>
<td>Package Power dissipation permitted</td>
<td>PD</td>
<td>1</td>
<td></td>
<td>W</td>
<td></td>
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</table>

Absolute maximum ratings

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Symbol</th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating current (One bank active)</td>
<td>IccoP</td>
<td>50</td>
<td>mA</td>
</tr>
<tr>
<td>TTL Standby Current</td>
<td>IsB</td>
<td>4</td>
<td>mA</td>
</tr>
<tr>
<td>CMOS Standby Current</td>
<td>IsB1</td>
<td>80</td>
<td>μA</td>
</tr>
</tbody>
</table>

DC Characteristics

3D EE2M08VS2154

Temperature Range: -40°C to +85°C

Quality Level:
- N = Commercial Grade
- B = Industrial Grade
- S = Space Grade
- C = Custom

Module Marking

Part Number Marking
Part Option Marking
Pin 1 Indicator

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Young / MMEE082508025-C

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