1.2V Serial NOR Flash

*spiFlash® Memories with SPI, Dual-SPI, Quad-SPI*

**General Description**

Winbond W25QxxND 1.2V series parts are the industry’s lowest voltages NOR flash memories in 8-pin packages, these newest members of the SpiFlash® family provide designers with serial flash memories for mobile, wearable, IoT and other demanding applications that call for low power in small packages.

Their low voltages and 52 megabytes per second transfer rate make the new SpiFlash® memories optimal for a broad range of consumer and industrial applications.

**Package Information**

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Flash Density</th>
<th>Part Number</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.14V - 1.6V</td>
<td>128 Mb</td>
<td>W25Q128ND</td>
<td>SOIC8 208mil, WSON8 6X5mm</td>
</tr>
<tr>
<td></td>
<td>64 Mb</td>
<td>W25Q64ND</td>
<td>SOIC8 208mil, WSON8 6X5mm</td>
</tr>
<tr>
<td></td>
<td>32 Mb</td>
<td>W25Q32ND</td>
<td>SOIC8 208mil, WSON8 6X5mm</td>
</tr>
<tr>
<td></td>
<td>16 Mb</td>
<td>W25Q16ND</td>
<td>SOIC8 150mil, USON8 4X3mm</td>
</tr>
<tr>
<td></td>
<td>8 Mb</td>
<td>W25Q80ND</td>
<td>SOIC8 150mil, USON8 2X3mm</td>
</tr>
</tbody>
</table>

*See data sheet for further technical information. This is subject to change without notice.*

**Low Power, Wide Temperature Range**

- Support 1.14V to 1.6V range
- 2mA active current
- < 0.5μA power-down current
- -40°C to +85°C operating range

**Flexible Architecture with 4KB Sectors**

- Uniform sector erase (4K-bytes)
- Uniform block erase (32K and 64K-bytes)
- Programmable one to 256 bytes
- Erase/Program suspend & resume
Key Features

- **Better power consumption**

  ![Power Consumption Diagram]

  - 1.8V * 4mA = 7.2mW (33% OFF Power Consumption)
  - 1.2V * 4mA = 4.8mW

- **Cover most of AA battery life**

  Support 1.14V-1.6V

- **Easy to adopt**

  Backward compatible command set
  - No software/firmware change request
  - Just voltage change

**Small package for portable device**

- SOP8 150mil
- WLCSP
- USON8 2x3
- Known Good Die