



| SYMBOL                         | MILLIMETERS |           |      | NOTE |
|--------------------------------|-------------|-----------|------|------|
|                                | MIN.        | NOM.      | MAX. |      |
| A                              | 2.00        | $\approx$ | 2.85 | 2    |
| A <sub>1</sub>                 | 0.40        | $\approx$ | 0.60 |      |
| A <sub>2</sub>                 | 1.60        | $\approx$ | 2.25 |      |
| D/E                            | 19.00 BASIC |           |      |      |
| D <sub>1</sub> /E <sub>1</sub> | 17.00 REF   |           |      |      |
| e                              | 1.00 BASIC  |           |      |      |
| øb                             | 0.50        | 0.60      | 0.70 |      |
| aaa                            | $\approx$   | $\approx$ | 0.20 |      |
| ccc                            | $\approx$   | $\approx$ | 0.25 |      |
| ddd                            | $\approx$   | $\approx$ | 0.25 |      |
| eee                            | $\approx$   | $\approx$ | 0.10 |      |
| M                              | 18          |           |      |      |

**NOTES:**

1. ALL DIMENSIONS AND TOLERANCES CONFORM TO ANSI Y14.5M-1994
  2. SYMBOL 'M' IS THE BALL MATRIX SIZE.
  3. CONFORMS TO JEDEC MS-034-AAG-1
- $\triangle$  SOLDER BALL COUNT = 324

**323-BALL FLIP-CHIP BGA (FF323/FFG323)**

## Revision History

The following table shows the revision history for this document.

| Date     | Version | Revision                      |
|----------|---------|-------------------------------|
| 12/07/07 | 1.0     | Initial Xilinx release.       |
| 03/24/08 | 1.1     | Updated JEDEC to MS-034-AAG-1 |