



SYMBOL	MILLIMETERS			NOTE
	MIN.	NOM.	MAX.	
A	2.00	<i>typ</i>	2.85	2
A <sub>1</sub>	0.40	<i>typ</i>	0.60	
A <sub>2</sub>	0.60	<i>typ</i>	1.00	
D/E	19.00 BASIC			
D <sub>1</sub> /E <sub>1</sub>	17.00 REF			
e	1.00 BASIC			
φb	0.50	0.60	0.70	
aaa	<i>typ</i>	<i>typ</i>	0.20	
ccc	<i>typ</i>	<i>typ</i>	0.25	
ddd	<i>typ</i>	<i>typ</i>	0.25	
eee	<i>typ</i>	<i>typ</i>	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-AAL-1

## 324-BALL FLIP CHIP BGA (FF324)

## Revision History

The following table shows the revision history for this document.

Date	Version	Revision
05/15/06	1.0	Initial Xilinx release.