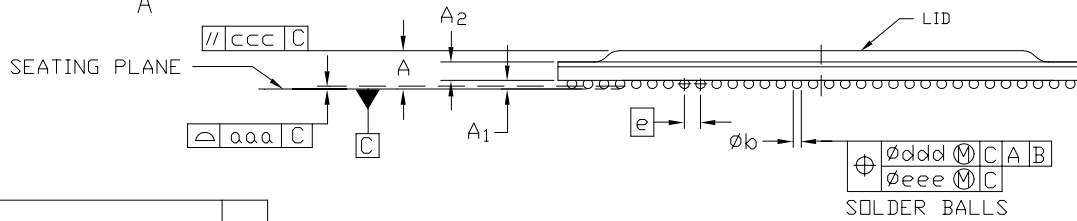
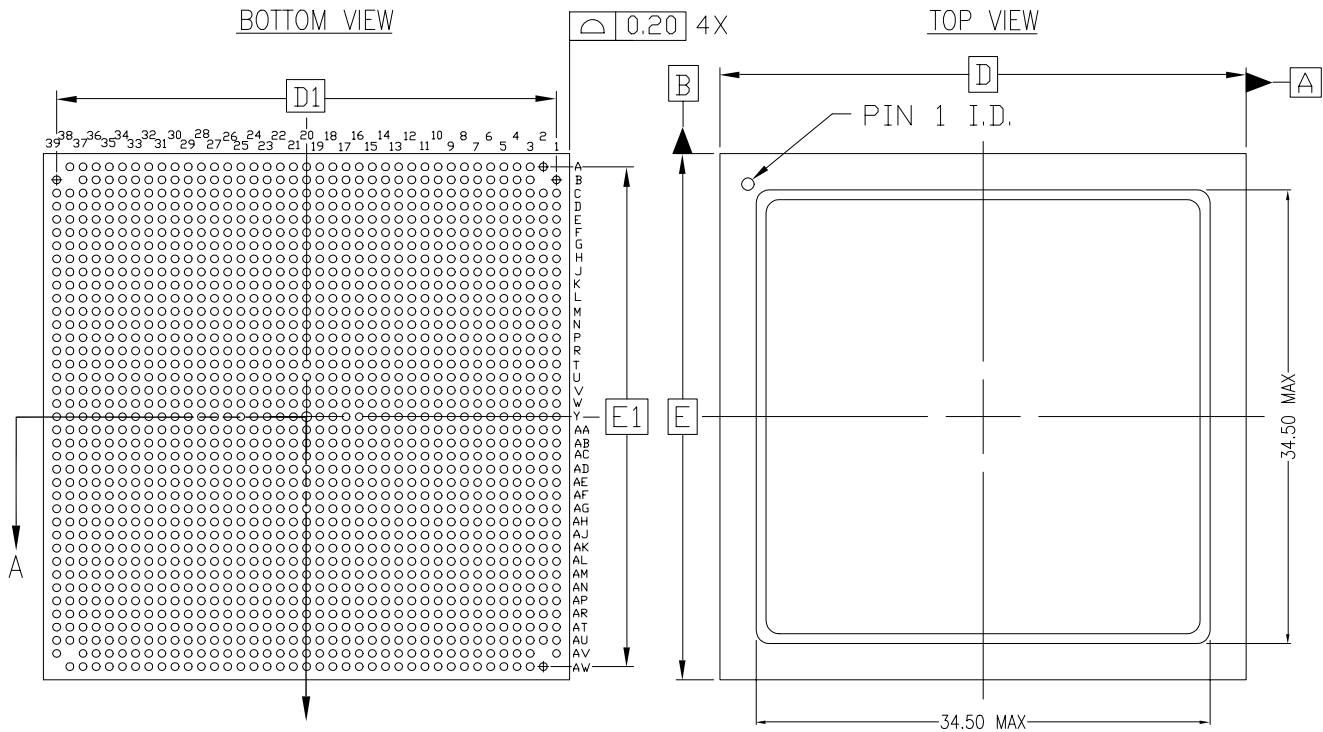


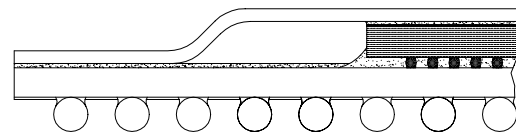
# Flip Chip BGA (FF1513) Package



SYMBOL	MILLIMETERS			NOTE
	MIN.	NOM.	MAX.	
A	$\sqrt{\text{H}}$	$\sqrt{\text{H}}$	3.25	2
A <sub>1</sub>	0.40	0.50	0.60	
A <sub>2</sub>	1.50	1.65	1.80	
D/E	40.00		BASIC	
D <sub>1</sub> /E <sub>1</sub>	38.00		REF	
e	1.00		BASIC	
phi b	0.50	0.60	0.70	
aaa	$\sqrt{\text{H}}$	$\sqrt{\text{H}}$	0.20	
ccc	$\sqrt{\text{H}}$	$\sqrt{\text{H}}$	0.25	
ddd	$\sqrt{\text{H}}$	$\sqrt{\text{H}}$	0.25	
eee	$\sqrt{\text{H}}$	$\sqrt{\text{H}}$	0.10	
M	39			

NOTES:

1. ALL DIMENSIONS AND TOLERANCES CONFORM TO ASME Y14.5M-1994
2. SYMBOL "M" IS THE PIN MATRIX SIZE.
3. CONFORMS TO JEDEC MS-034-AAU-1 (DEPOPULATED)



SECTION A-A  
(NOT TO SCALE)

## 1513-BALL FLIP CHIP BGA (FF1513)