

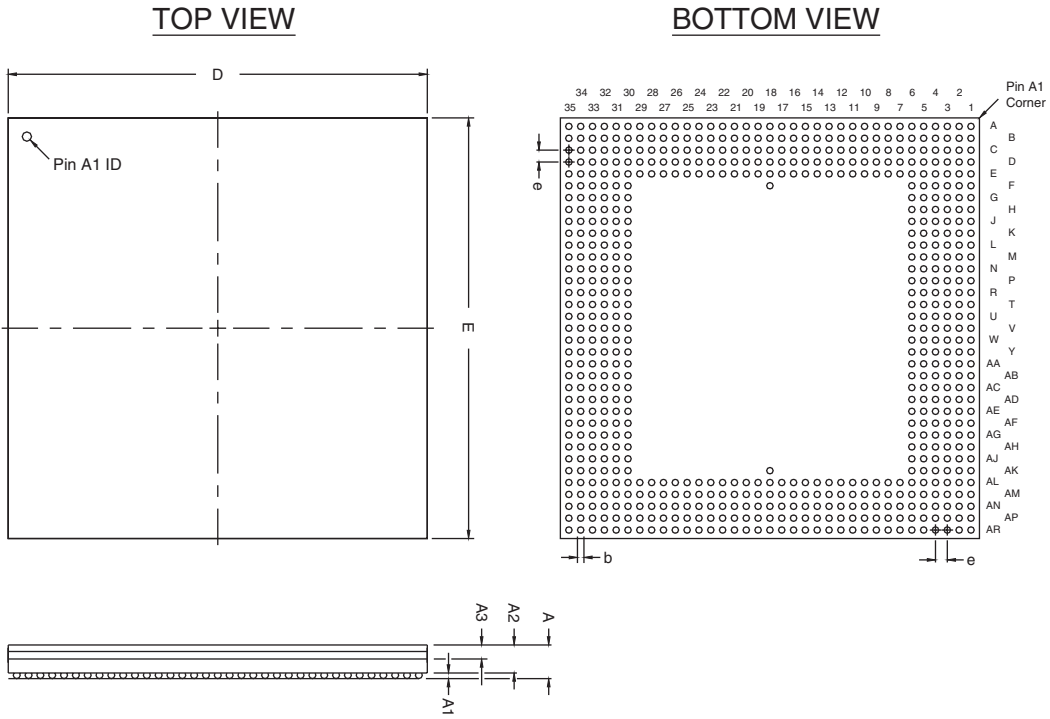
**652-Pin Ball-Grid Array (BGA) - Option 1 - Flip Chip**

- All dimensions and tolerances conform to ASME Y14.5M - 1994.
- Controlling dimension is in millimeters.
- Pin A1 may be indicated by an ID dot, or a special feature, in its proximity on package surface.

<i>Package Information</i>	
Description	Specification
Ordering Code Reference	B
Package Acronym	BGA
Substrate Material	BT
Solder Ball Composition	Regular: 63Sn:37Pb (Typ.) Pb-free: Sn:3Ag:0.5Cu (Typ.)
JEDEC Outline Reference	MS-034 Variation: BAW-1
Maximum Lead Coplanarity	0.008 inches (0.20 mm)
Weight	23.8 g
Moisture Sensitivity Level	Printed on moisture barrier bag

<i>Package Outline Dimension Table</i>			
Symbol	Millimeters		
	Min.	Nom.	Max.
A	–	–	3.50
A1	0.30	–	–
A2	0.25	–	3.00
A3	–	–	2.50
D	45.00 BSC		
E	45.00 BSC		
b	0.60	0.75	0.90
e	1.27 BSC		

**Package Outline**





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I.S. EN ISO 9001

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