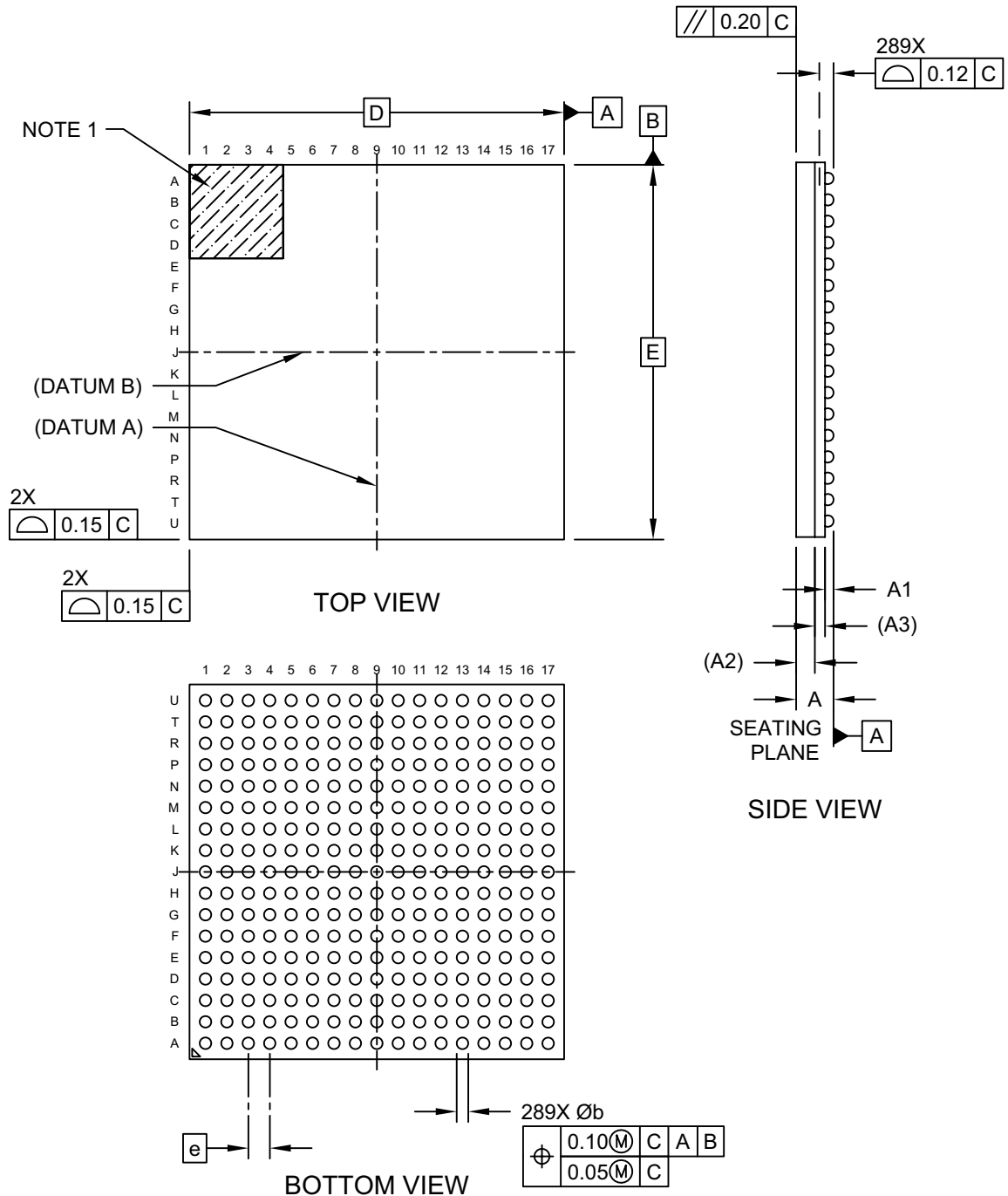


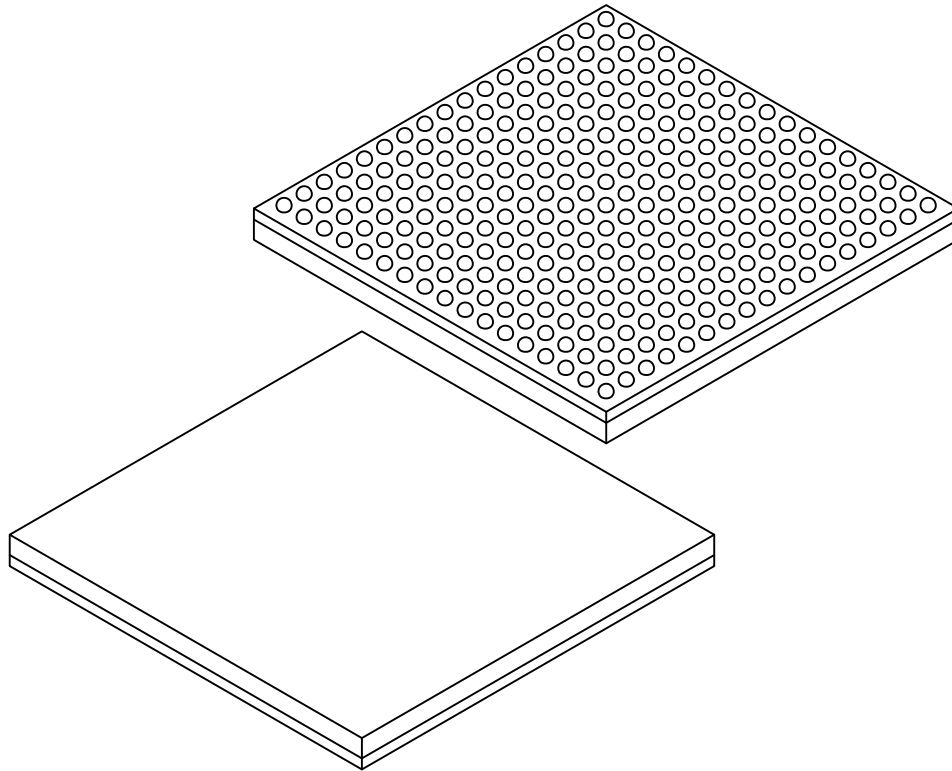
**289-Ball Low Profile Fine Pitch Ball Grid Array (AMB) - 14x14x1.4 mm Body [LFBGA]
Atmel Legacy Global Package Code CCZ**

Note: For the most current package drawings, please see the Microchip Packaging Specification located at <http://www.microchip.com/packaging>



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Dimension Limits	Units	MILLIMETERS		
		MIN	NOM	MAX
Number of Terminals	N	289		
Pitch	e	0.80 BSC		
Overall Height	A	-	-	1.40
Ball Height	A1	0.27	0.32	0.37
Molded Cap Thickness	A2	0.70 REF		
Substrate Thickness	A3	0.26 REF		
Overall Length	D	14.00 BSC		
Overall Width	E	14.00 BSC		
Terminal Diameter	b	0.38	0.43	0.48

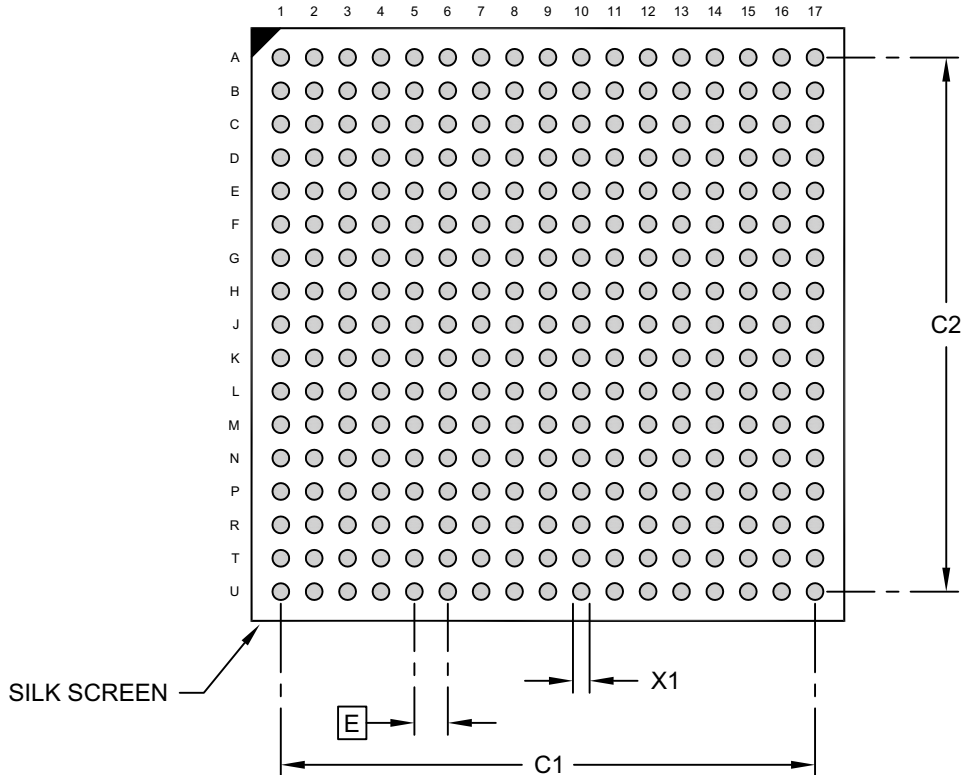
Notes:

- Pin 1 visual index feature may vary, but must be located within the hatched area.
- Dimensioning and tolerancing per ASME Y14.5M
BSC: Basic Dimension. Theoretically exact value shown without tolerances.
REF: Reference Dimension, usually without tolerance, for information purposes only.



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RECOMMENDED LAND PATTERN

Units		MILLIMETERS		
Dimension Limits		MIN	NOM	MAX
Contact Pitch	E	0.80 BSC		
Contact Pad Spacing	C1		12.80	
Contact Pad Spacing	C2		12.80	
Contact Pad Width (X20)	X1			0.40

Notes:

- Dimensioning and tolerancing per ASME Y14.5M
BSC: Basic Dimension. Theoretically exact value shown without tolerances.
- For best soldering results, thermal vias, if used, should be filled or tented to avoid solder loss during reflow process

Microchip Technology Drawing C04-23124 Rev A