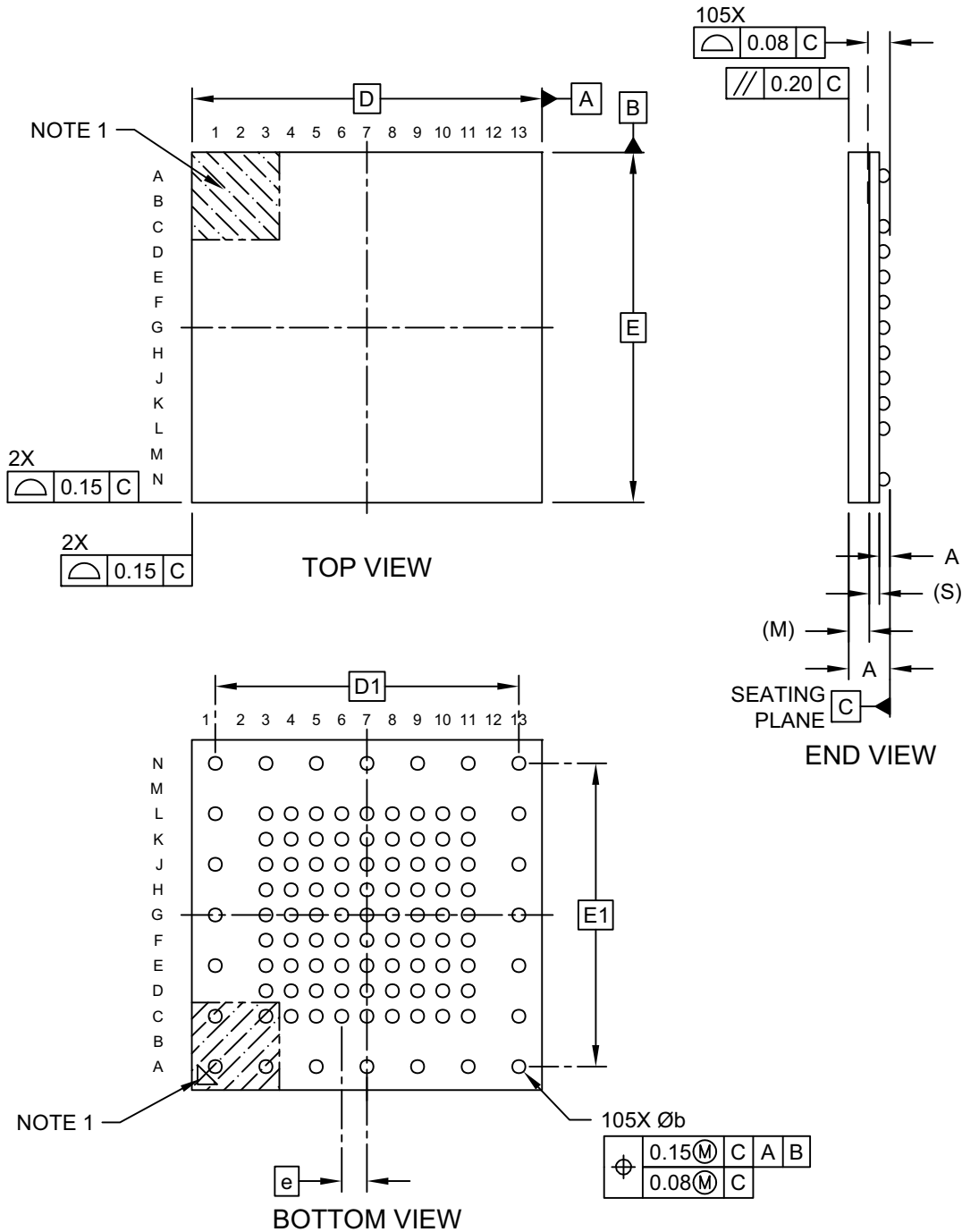


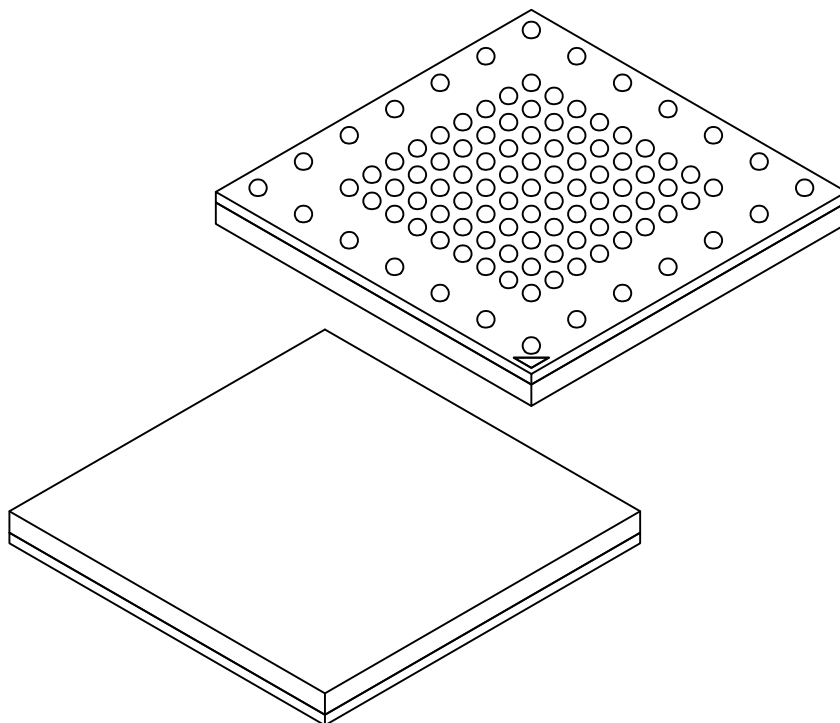
105-Ball Thin Fine-Pitch Ball Grid Array Package (KWX) - 9x9x1.2 mm Body [TFBGA]

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



105-Ball Thin Fine-Pitch Ball Grid Array Package (KWX) - 9X9X1.2 mm Body [TFBGA]

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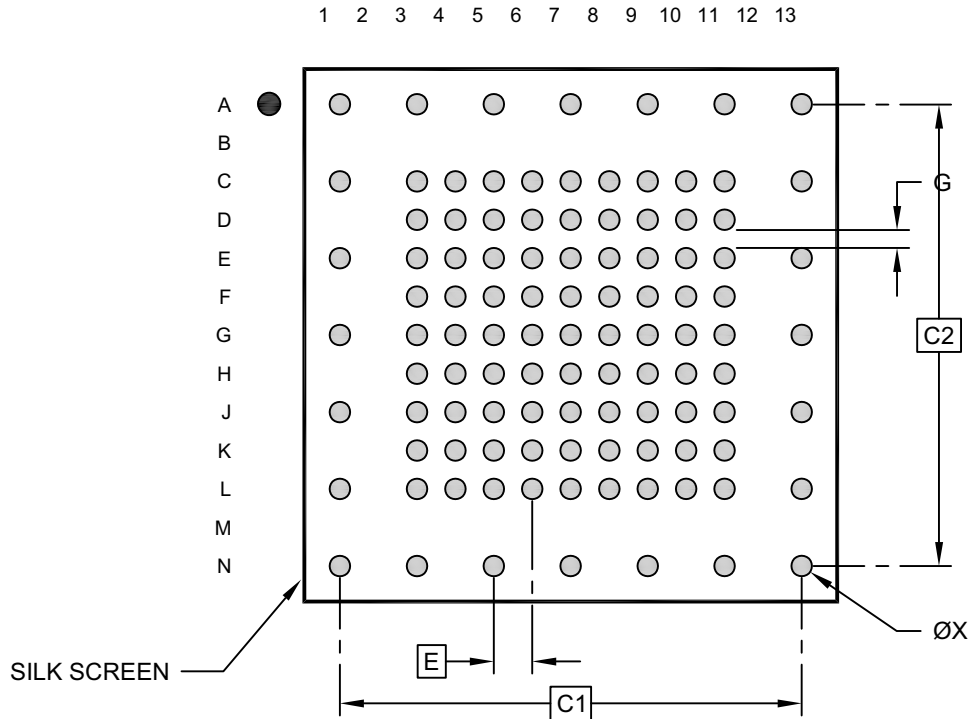
Units		MILLIMETERS		
Dimension Limits		MIN	NOM	MAX
Number of Terminals	N	105		
Pitch	e	X.XX BSC		
Overall Height	A	–	–	1.20
Ball Height	A1	0.22	–	0.32
Mold Thickness	M	0.53 REF		
Substrate Thickness	S	0.26 REF		
Overall Length	D	9.00 BSC		
Ball Array Length	D2	7.80 BSC		
Overall Width	E	9.00 BSC		
Ball Array Width	E2	7.80 BSC		
Ball Diameter	b	0.32	0.35	0.42

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.

105-Ball Thin Fine-Pitch Ball Grid Array Package (KWX) - 9x9x1.2 mm Body [TFBGA]

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



RECOMMENDED LAND PATTERN

		Units	MILLIMETERS		
Dimension Limits			MIN	NOM	MAX
Contact Pitch	E			0.65 BSC	
Contact Pad Spacing	C1			7.80 BSC	
Contact Pad Spacing	C2			7.80 BSC	
Contact Pad Diameter (X105)	X				X.XX
Contact Pad to Contact Pad	G		0.30		

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