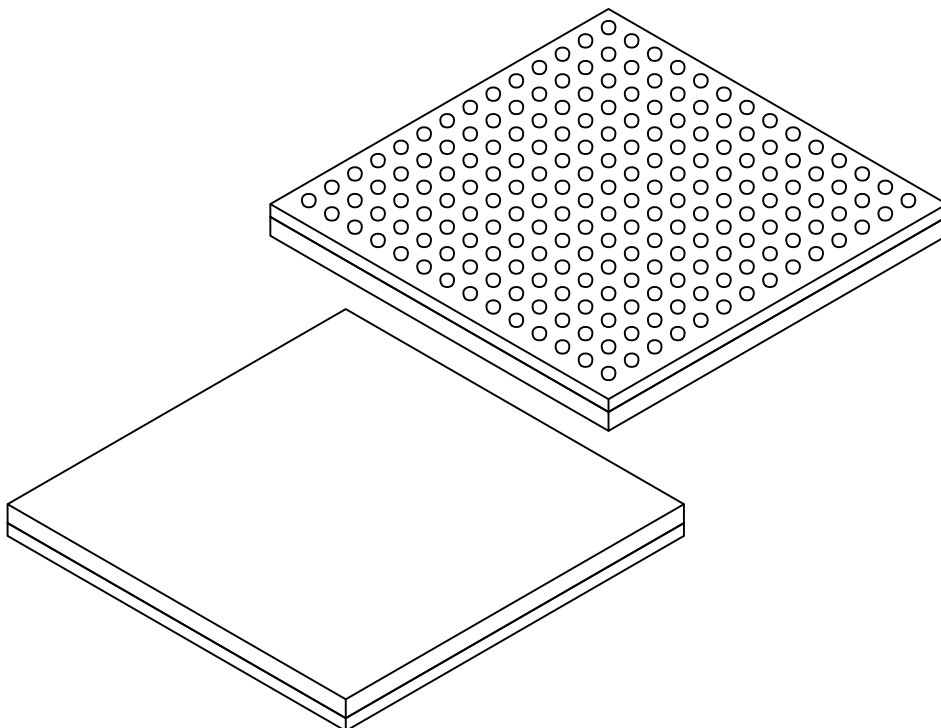


# 196-Ball Thin Fine Pitch Ball Grid Array (BAB) - 11x11 mm Body [TFBGA]

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



Units		MILLIMETERS		
Dimension Limits		MIN	NOM	MAX
Number of Terminals	N	196		
Pitch	e	0.75 BSC		
Overall Height	A	-	-	1.20
Ball Height	A1	0.16	0.25	0.26
Substrate Thickness	S	0.36 REF		
Mold Cap Thickness	M	0.53 REF		
Overall Length	D	11.00 BSC		
Overall Ball Pitch	eD	9.75 BSC		
Overall Width	E	11.00 BSC		
Overall Ball Pitch	eE	9.75 BSC		
Ball Diameter	b	0.27	0.32	0.37

**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.