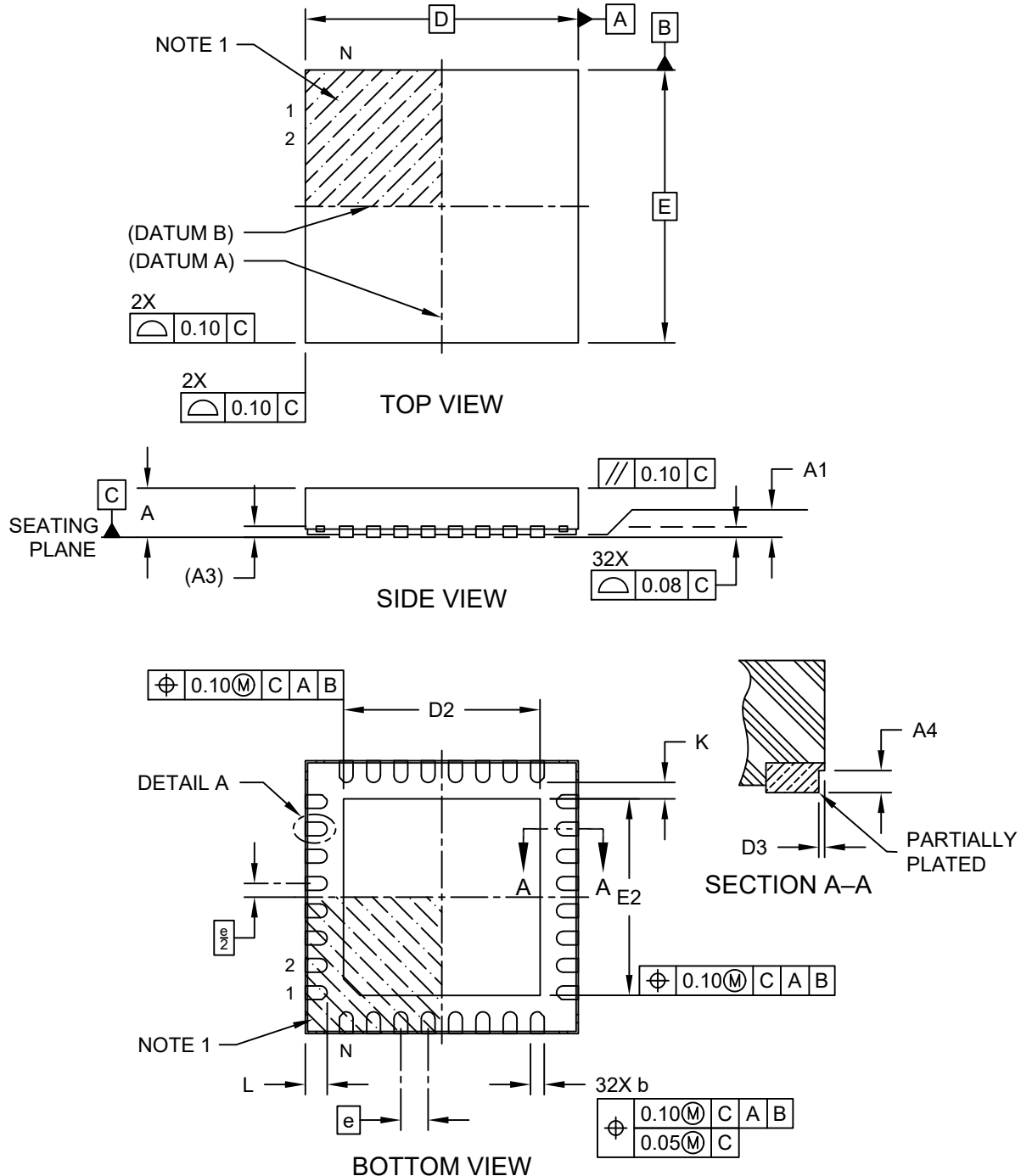


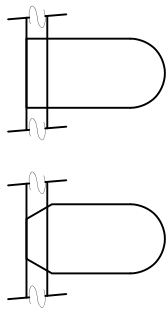
**32-Lead Very Thin Plastic Quad Flat, No Lead Package (RTB) - 5x5 mm Body [VQFN]
With 3.6x3.6 mm Exposed Pad and Stepped Wettable Flanks; Atmel Legacy ZBS**

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

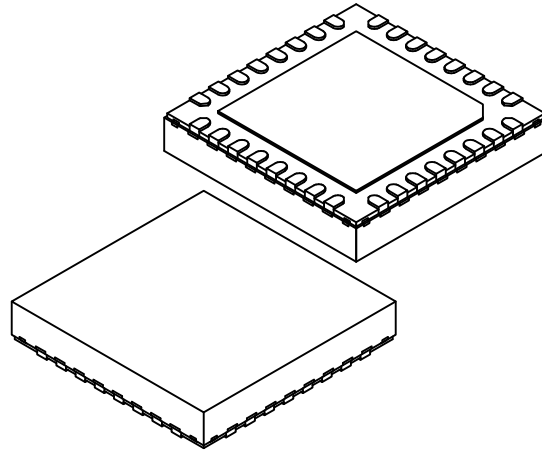


32-Lead Very Thin Plastic Quad Flat, No Lead Package (RTB) - 5x5 mm Body [VQFN] With 3.6x3.6 mm Exposed Pad and Stepped Wettable Flanks; Atmel Legacy ZBS

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DETAIL 1
ALTERNATE TERMINAL
CONFIGURATIONS



Units		MILLIMETERS		
Dimension Limits		MIN	NOM	MAX
Number of Terminals	N	32		
Pitch	e	0.50 BSC		
Overall Height	A	0.80	0.90	1.00
Standoff	A1	0.00	0.035	0.05
Terminal Thickness	A3	0.203 REF		
Overall Length	D	5.00 BSC		
Exposed Pad Length	D2	3.50	3.60	3.70
Overall Width	E	5.00 BSC		
Exposed Pad Width	E2	3.50	3.60	3.70
Terminal Width	b	0.20	0.25	0.30
Terminal Length	L	0.35	0.40	0.45
Terminal-to-Exposed-Pad	K	0.20	-	-
Wettable Flank Step Cut Width	D3	-	-	0.085
Wettable Flank Step Cut Depth	A4	0.10	-	0.19

Dimensions D3 and A4 above apply to all new products released after November 1, and all products shipped after January 1, 2019, and supersede dimensions D3 and A4 below.

No physical changes are being made to any package; this update is to align cosmetic and tolerance variations from existing suppliers.

Wettable Flank Step Length	D3	0.035	0.06	0.085
Wettable Flank Step Height	A4	0.10	-	0.19

Notes:

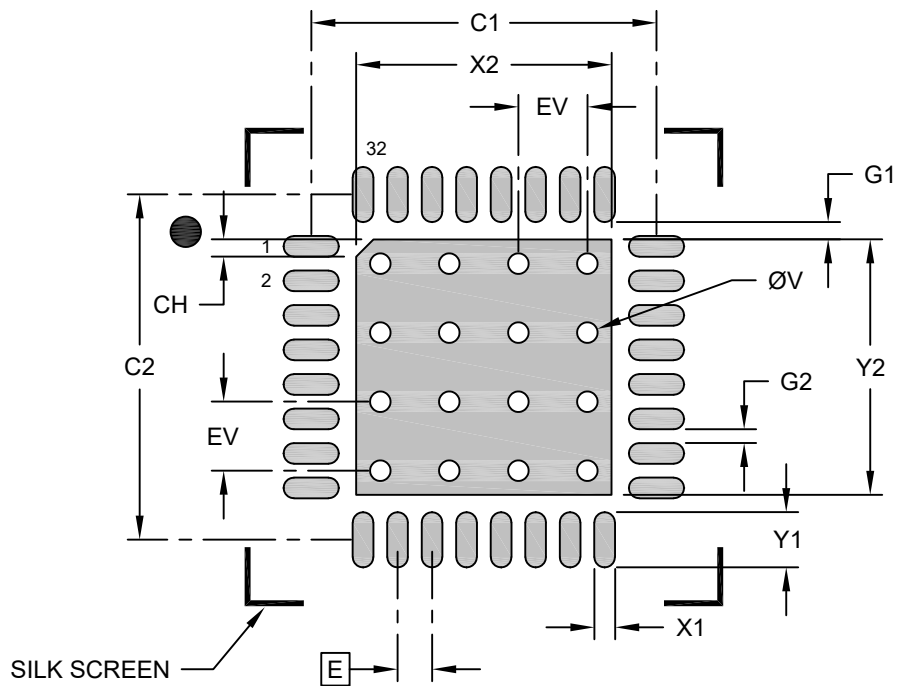
1. Pin 1 visual index feature may vary, but must be located within the hatched area.
2. Package is saw singulated
3. Dimensioning and tolerancing per ASME Y14.5M

BSC: Basic Dimension. Theoretically exact value shown without tolerances.

REF: Reference Dimension, usually without tolerance, for information purposes only.

**32-Lead Very Thin Plastic Quad Flat, No Lead Package (RTB) - 5x5 mm Body [VQFN]
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RECOMMENDED LAND PATTERN

Units		MILLIMETERS		
Dimension Limits		MIN	NOM	MAX
Contact Pitch	E	0.50 BSC		
Optional Center Pad Width	X2			3.70
Optional Center Pad Length	Y2			3.70
Exposed Pad 45° Corner Chamfer	CH		0.25	
Contact Pad Spacing	C1		5.00	
Contact Pad Spacing	C2		5.00	
Contact Pad Width (X32)	X1			0.30
Contact Pad Length (X32)	Y1			0.80
Contact Pad to Center Pad (X32)	G1	0.25		
Contact Pad to Contact Pad (X28)	G2	0.20		
Thermal Via Diameter	V		0.30	
Thermal Via Pitch	EV		1.00	

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 C04-23391 Rev G