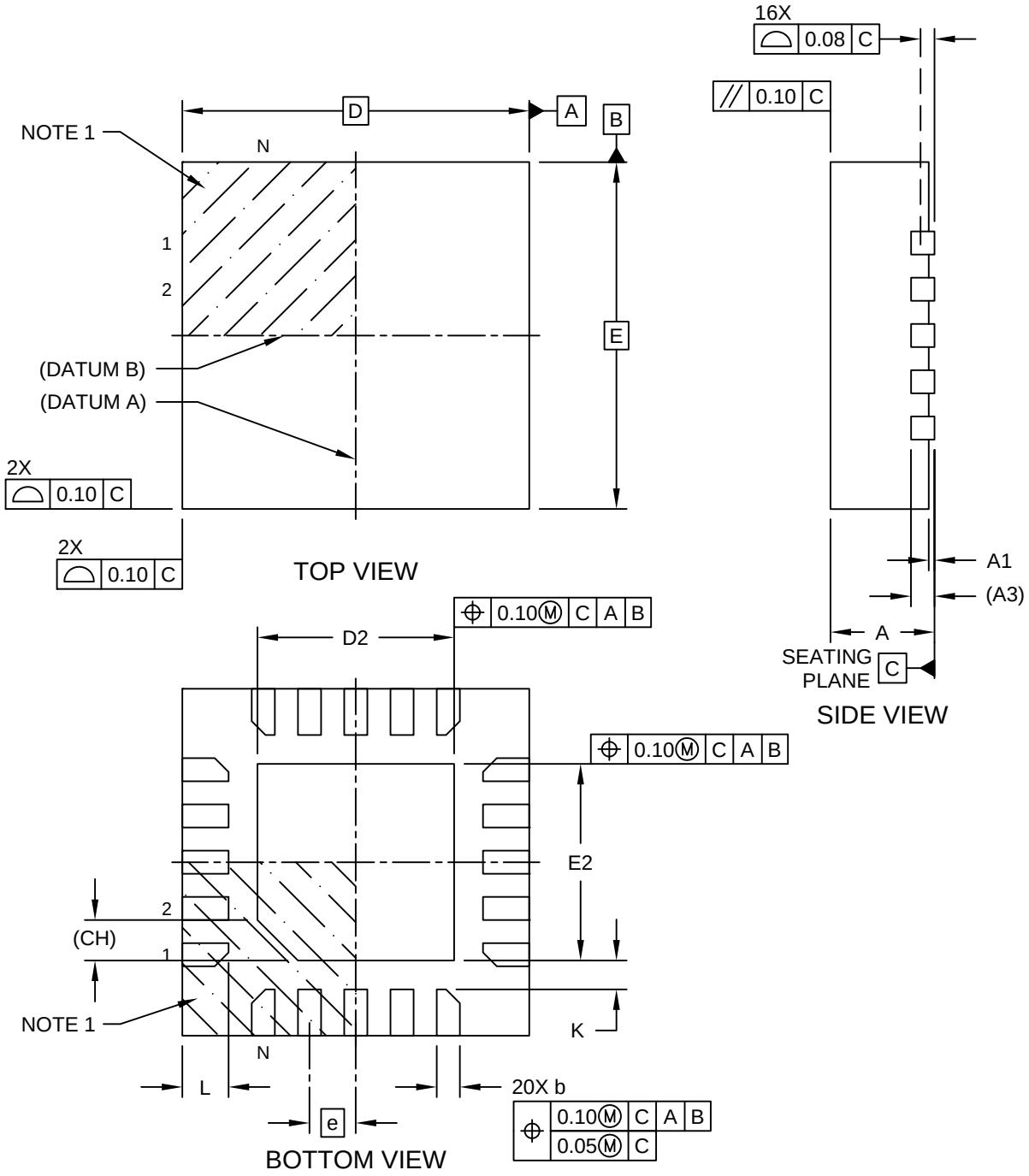
20-Lead Very Thin Plastic Quad Flat, No Lead Package (REB) - 3x3 mm Body [VQFN] With 1.7 mm Exposed Pad; Atmel Legacy Global Package Code ZCL

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



20-Lead Very Thin Plastic Quad Flat, No Lead Package (REB) - 3x3 mm Body [VQFN] With 1.7 mm Exposed Pad; Atmel Legacy Global Package Code ZCL

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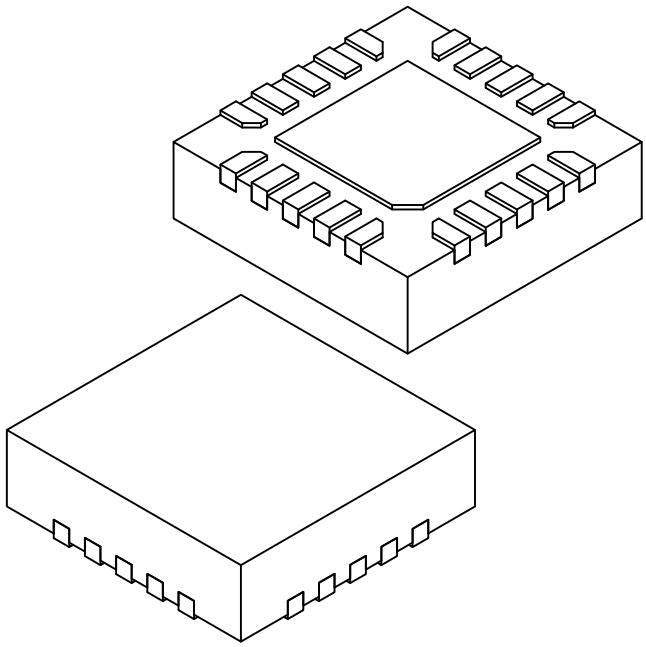


Units		MILLIMETERS		
Dimension Limits		MIN	NOM	MAX
Number of Terminals	N		20	
Pitch	e		0.40 BSC	
Overall Height	A	0.80	0.85	0.90
Standoff	A1	0.00	0.035	0.05
Terminal Thickness	A3		0.203 REF	
Overall Length	D		3.00 BSC	
Exposed Pad Length	D2	1.60	1.70	1.80
Overall Width	E		3.00 BSC	
Exposed Pad Width	E2	1.60	1.70	1.80
Terminal Width	b	0.15	0.20	0.25
Terminal Length	L	0.35	0.40	0.45
Terminal-to-Exposed-Pad	K	0.20	-	-
Pin 1 Index Chamfer	CH		0.35 REF	

Notes:

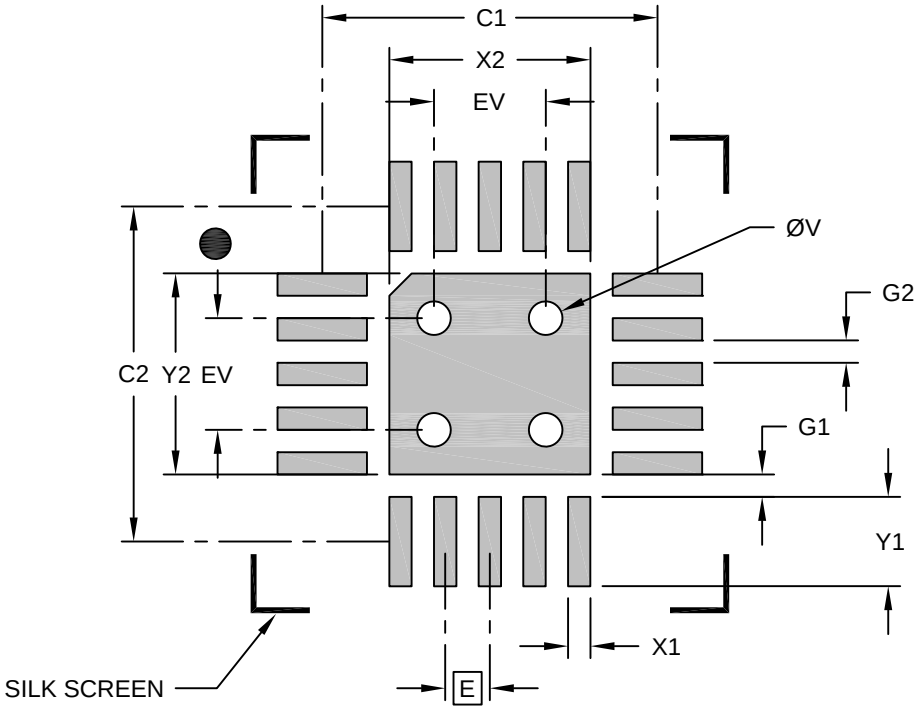
1. Pin 1 visual index feature may vary, but must be located within the hatched area.
2. Package is saw singulated
3. Dimensioning and tolerancing per ASME Y14.5M

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

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

20-Lead Very Thin Plastic Quad Flat, No Lead Package (REB) - 3x3 mm Body [VQFN] With 1.7 mm Exposed Pad; Atmel Legacy Global Package Code ZCL

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	0.40 BSC		
Optional Center Pad Width	X2			1.80
Optional Center Pad Length	Y2			1.80
Contact Pad Spacing	C1		3.00	
Contact Pad Spacing	C2		3.00	
Contact Pad Width (X20)	X1			0.20
Contact Pad Length (X20)	Y1			0.80
Contact Pad to Center Pad (X20)	G1	0.20		
Contact Pad to Contact Pad (X16)	G2	0.20		
Thermal Via Diameter	V		0.30	
Thermal Via Pitch	EV		1.00	

Notes:

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

Microchip Technology Drawing C04-23380 Rev A