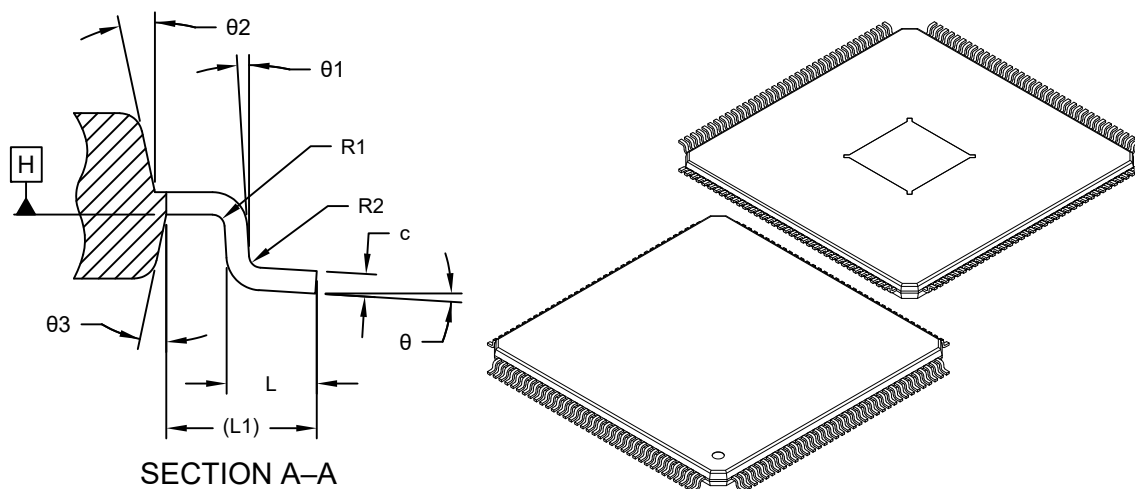


144-Lead Plastic Thin Quad Flat Pack (XFB) - 20x20x1.0 mm Body [TQFP] With 5.40 mm Exposed Pad

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



		Units	MILLIMETERS		
Dimension Limits			MIN	NOM	MAX
Number of Terminals	N	144			
Pitch	e	0.50 BSC			
Overall Height	A	-	-	-	1.20
Standoff	A1	0.05	-	-	0.15
Molded Package Thickness	A2	0.95	-	1.00	1.05
Overall Length	D	22.00 BSC			
Molded Package Length	D1	20.00 BSC			
Exposed Pad Length	D2	5.30	5.40	5.50	
Overall Width	E	22.00 BSC			
Molded Package Width	E1	20.00 BSC			
Exposed Pad Width	E2	5.30	5.40	5.50	
Terminal Width	b	0.17	0.22	0.27	
Terminal Thickness	c	0.09	-	0.20	
Terminal Length	L	0.45	0.60	0.75	
Footprint	L1	1.00 REF			
Lead Bend Radius	R1	0.08	-	-	
Lead Bend Radius	R2	0.08	-	0.20	
Foot Angle	θ	0°	3.5°	7°	
Lead Angle	θ1	0°	-	-	
Mold Draft Angle	θ2	11°	12°	13°	
Mold Draft Angle	θ3	11°	12°	13°	

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.