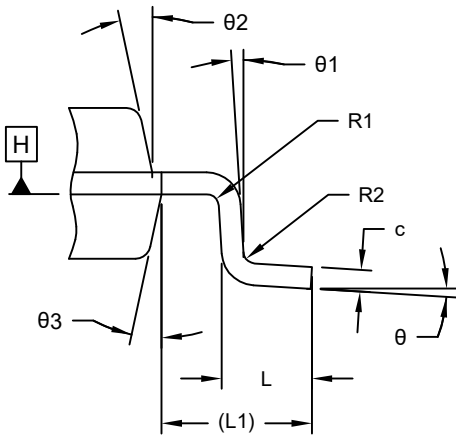
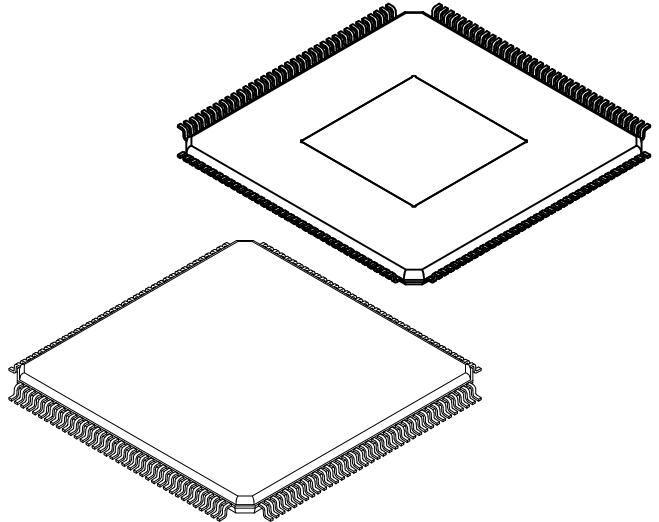


144-Lead Plastic Thin Quad Flat Pack (8YX) - 20x20x1.0 mm Body [TQFP] With 9.5 mm Exposed Pad

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



DETAIL A



| Dimension Limits | Units | MILLIMETERS | | |
|--------------------------|------------|-------------|------|------|
| | | MIN | NOM | MAX |
| Number of Terminals | N | 144 | | |
| Pitch | e | 0.50 BSC | | |
| Overall Height | A | - | - | 1.20 |
| Standoff | A1 | 0.05 | 0.10 | 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 | 9.40 | 9.50 | 9.60 |
| Overall Width | E | 22.00 BSC | | |
| Molded Package Width | E1 | 20.00 BSC | | |
| Exposed Pad Width | E2 | 9.40 | 9.50 | 9.60 |
| 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 | θ_1 | 0° | - | - |
| Mold Draft Angle | θ_2 | 11° | 12° | 13° |
| Mold Draft Angle | θ_3 | 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.