<u>TopLine</u>

QFP QUAD FLAT PACK







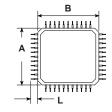


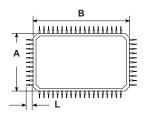


SQUARE BODY

| DUMMY COMPONENT ORDERING INFORMATION | | | | | | | | | | |
|--------------------------------------|--|--|---|--|----------------------------|---|---------------------|--|--|--|
| NBR LEADS | 2xL FOOTPRINT ADDER MM | LEAD MILS | Р ітсн мм | Tray Part Num | nber Qтү | 7" (180mm) Tape & Ree Part Numbe | | Tape & Reel Part Number | Q _{TY} | |
| 10mm Square Body | | | | | | | | | | |
| 44 44 52 52 64 | 3.2mm 3.9mm 3.2mm 3.9mm 3.2mm | 31.5 31.5 25.6 25.6 19.7 | 0.8 0.8 0.65 0.65 0.5 | QFP44T30-3.2 QFP44T30-3.9 QFP52T25-3.2 QFP52T25-3.9 QFP64T19.7-3.2 | 96 96 96 96 96 | QFP44E7A30-3.2 QFP44E7A30-3.9 - - - | 50 50 - - | QFP44E13A30-3.2 QFP44E13A30-3.9 QFP52E13A25-3.2 QFP52E13A25-3.9 | 500 500 500 500 | |
| 14мм \$ | 14MM SQUARE BODY | | | | | | | | | |
| 44 52 64 64 80 80 | 3.2mm 3.2mm 3.2mm 3.2mm 3.2mm 3.2mm | 40 40 31.5 31.5 25.6 25.6 | 1.0 1.0 0.8 0.8 0.65 0.65 | QFP44T40-3.2 QFP52T40-3.2 QFP64T30-3.2-2.0H QFP64T30-3.2-2.7H QFP80T25-3.2-2.0H QFP80T25-3.2-2.7H | 84 84 84 84 84 | - - - - - | | QFP44E13A40-3.2 QFP52E13A40-3.2 QFP64E13A30-3.2-2.0H QFP64E13A30-3.2-2.7H QFP80E13A25-3.2-2.0H QFP80E13A25-3.2-2.7H | 350 350 350 350 350 350 | |
| 14mm x 20mm Rectangular Body | | | | | | | | | | |
| 64 64 80 100 100 | 3.2mm 3.9mm 3.9mm 3.2mm 3.9mm 5.6mm | 40 40 31.5 25.6 25.6 25.6 | 1.0 1.0 0.8 0.65 0.65 0.65 | QFP64T40-3.2 QFP64T40-3.9 QFP80T30-3.9 QFP100T25-3.2 QFP100T25-3.9 QFP100T25-5.6 | 60 66 66 66 66 | - QFP64E7A40-3.9 QFP80E7A30-3.9 - QFP100E7A25-3.9 | 50 50 - 50 | QFP64E13A40-3.2 QFP64E13A40-3.9 QFP80E13A30-3.9 QFP100E13A25-3.2 QFP100E13A25-3.9 | 200 200 200 200 200 | |
| 128 | 3.2mm | 19.7 | 0.03 | QFP128T19.7-3.2 | 66 | - | - | - - | - | |

| | TYPICAL | TAPE INFO | | | |
|-----------|-----------|---------------|---------|--|--|
| BODY SIZE | THICKNESS | W IDTH | Рітсн | | |
| 10mm Sq. | 2.0mm | 24mm | 16/24mm | | |
| 14mm Sq. | 2.0mm | 32mm | 24mm | | |
| 14mm Sq. | 2.7mm | 32mm | 24mm | | |
| 14 x 20mm | 2.7mm | 44mm | 32mm | | |
| 28mm Sq. | 3.6mm | 44mm | 40mm | | |
| 32mm Sq. | 3.8mm | - | - | | |
| 40mm Sq. | 3.8mm | - | - | | |





TopLine

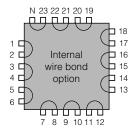
QFP QUAD FLAT PACK





| DUMMY COMPONENT ORDERING INFORMATION | | | | | | | | | | |
|--------------------------------------|---------------------------|------|------|-----------------|-------|-------------------|-----|---------------------------------------|----------|--|
| N BR | 2xL FOOTPRINT ADDER | LEAD | Tray | | | | | 13" (330mm) Tape & Re Part Numb | e & Reel | |
| LEADS | ММ | MILS | MM | XQ1 | QTY | XM1 | QTY | XQ1 | QTY | |
| 28mm Square Body | | | | | | | | | | |
| 120 | 3.2mm | 31.5 | 0.8 | QFP120T30-3.2 | 24 | - | - | QFP120E13A30-3.2 | 200 | |
| 120 | 3.9mm | 31.5 | 0.8 | QFP120T30-3.9 | 24 | QFP120E7A30-3.9 | 50 | QFP120E13A30-3.9 | 200 | |
| 128 | 3.2mm | 31.5 | 0.8 | QFP128T30-3.2 | 24 | - | - | QFP128E13A30-3.2 | 200 | |
| 128 | 3.9mm | 31.5 | 0.8 | QFP128T30-3.9 | 24 | - | - | QFP128E13A30-3.9 | 200 | |
| 136 | 3.2mm | 25.6 | 0.65 | QFP136T25-3.2 | 24 | - | - | QFP136E13A30-3.2 | 200 | |
| 144 | 2.6mm | 25.6 | 0.65 | QFP144T25-2.6 | 24 | - | - | QFP144E13A25-2.6 | 200 | |
| 144 | 3.2mm | 25.6 | 0.65 | QFP144T25-3.2 | 24 | QFP144E7A25-3.2 | 50 | QFP144E13A25-3.2 | 200 | |
| 144 | 3.9mm | 25.6 | 0.65 | QFP144T25-3.9 | 24 | - | - | QFP144E13A25-3.9 | 200 | |
| 160 | 2.6mm | 25.6 | 0.65 | QFP160T25-2.6 | 24 | <u>-</u> . | - | QFP160E13A25-2.6 | 200 | |
| 160 | 3.2mm | 25.6 | 0.65 | QFP160T25-3.2 | 24 | QFP160E7A25-3.2 | 50 | QFP160E13A25-3.2 | 200 | |
| 160 | 3.9mm | 25.6 | 0.65 | QFP160T25-3.9 | 24 | QFP160E7A25-3.9 | 50 | QFP160E13A25-3.9 | 200 | |
| 184 | 2.6mm | 19.7 | 0.5 | QFP184T19.7-2.6 | 24 | - | - | QFP184E13A19.7-2.6 | 200 | |
| 208 | 2.6mm | 19.7 | 0.5 | QFP208T19.7-2.6 | 24 | QFP208E7A19.7-2.6 | 50 | QFP208E13A19.7-2.6 | 200 | |
| 256 | 2.6mm | 15.7 | 0.4 | QFP256T15.7-2.6 | 24 | QFP256E7A15.7-2.6 | 50 | QFP256E13A15.7-2.6 | 200 | |
| 32MM SQUARE BODY | | | | | | | | | | |
| 184 | 4.5mm | 25.6 | 0.65 | QFP184T25-4.5 | 14 | - | - | - | - | |
| 240 | 2.6mm | 19.7 | 0.5 | QFP240T19.7-2.6 | 14/24 | - | - | | | |
| 40mm Square Body | | | | | | | | | | |
| 304 | 2.6mm | 19.7 | 0.5 | QFP304T19.7-2.6 | 12 | - | - | - | - | |

Daisy Chain available on special order Add -DE to end of part number See page 35

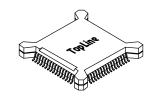




TopLine supplies a wide assortment of Quad Flat Packs in metric packages. Add 2 x L foot print to the body size for total tip-to-tip dimension. Coplanarity guaranteed to 4 mils (0.1mm). Tray quantities may vary. Some QFP contain internal die. For completely isolated (no internal connections) add -ISO to end of part number. Plating Sn85/Pb15

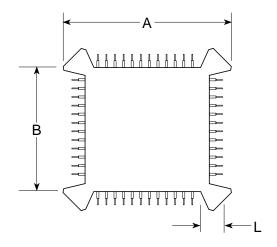
<u>TopLine</u>

BQFP BUMPER QUAD FLAT PACK TRUE 25 MIL PITCH





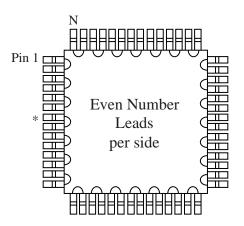
| DUMMY COMPONENT ORDERING INFORMATION | | | | | | | | | | | |
|--------------------------------------|---------------------------------|---------------------|-----------------------------|----------------------|----|-----------------------------------|----|-----------------------------|-----|--|--|
| N _{BR} | 2xL FOOTPRINT ADDER MM | LEAD PITCH MM | B BODY SIZE MM SQ. | Tray Part Number QTY | | Tape & Reel Part Number QTY | | Tape & Reel Part Number QTY | | | |
| 100 | 3.3 | 0.636 | 19 | BQFP100T25 | 55 | BQFP100E7A25 | 50 | BQFP100E13A25 | 300 | | |
| 132 | 3.3 | 0.636 | 24.1 | BQFP132T25 | 36 | BQFP132E7A25 | 50 | BQFP132E13A25 | 300 | | |



<u>TopLine</u>™

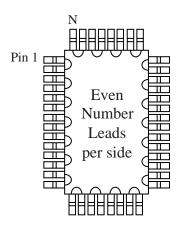
QFP Daisy Chain

SQUARE BODY



TOTAL NUMBER LEADS
24, 32, 48, 64, 80, 120, 128, 144
160, 168, 176, 184, 208, 216, 240, 256, 304
* Location of Pin 1 for CEROUAD

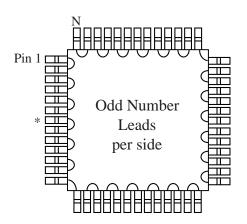
RECTANGLE BODY



TOTAL NUMBER LEADS 80, 100, 128

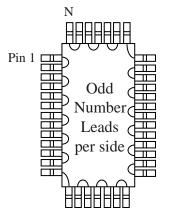
Not to Scale

SQUARE BODY



TOTAL NUMBER LEADS
28, 44, 52, 68, 84, 100, 132, 164, 172, 196, 244
* Location of Pin 1 for CERQUAD

RECTANGLE BODY



Total Number Leads
64

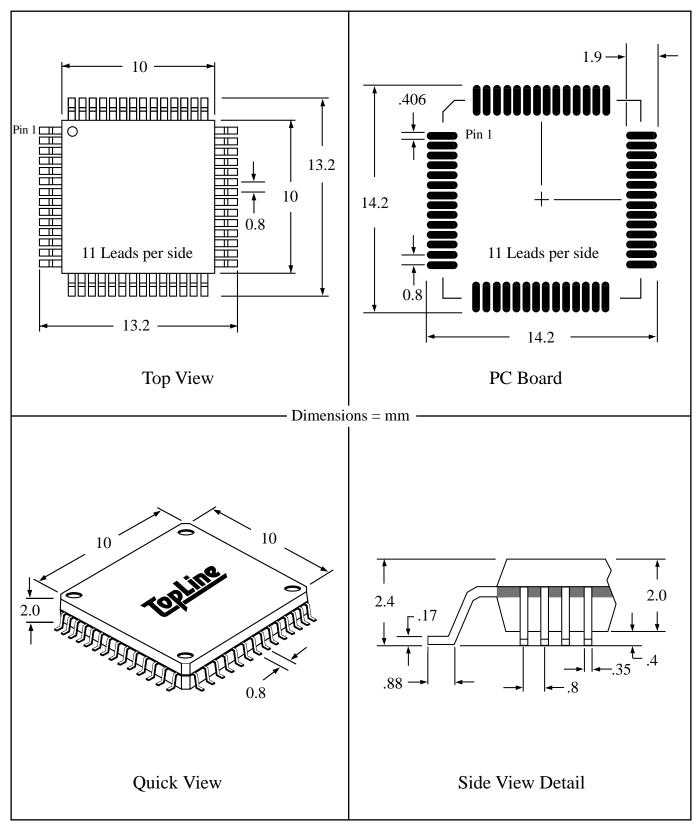
Part # **QFP44T30-3.2**

Leads 44 Pitch 0.8mm

Body Size 10mmSQ

Dwg Q44P832.pdf





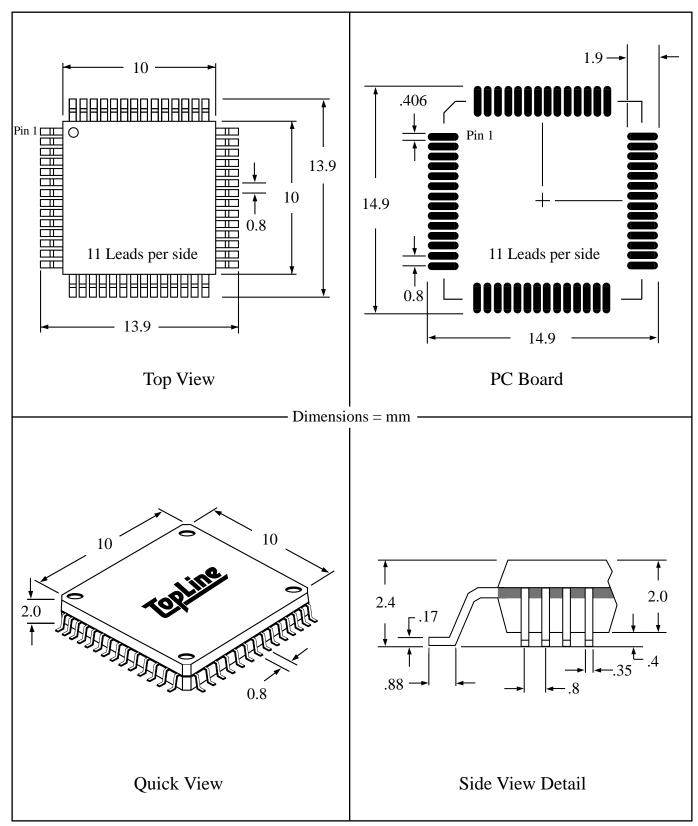
Part # **QFP44T30-3.9**

Leads 44 Pitch 0.8mm

Body Size 10mmSQ

Dwg Q44P839.pdf





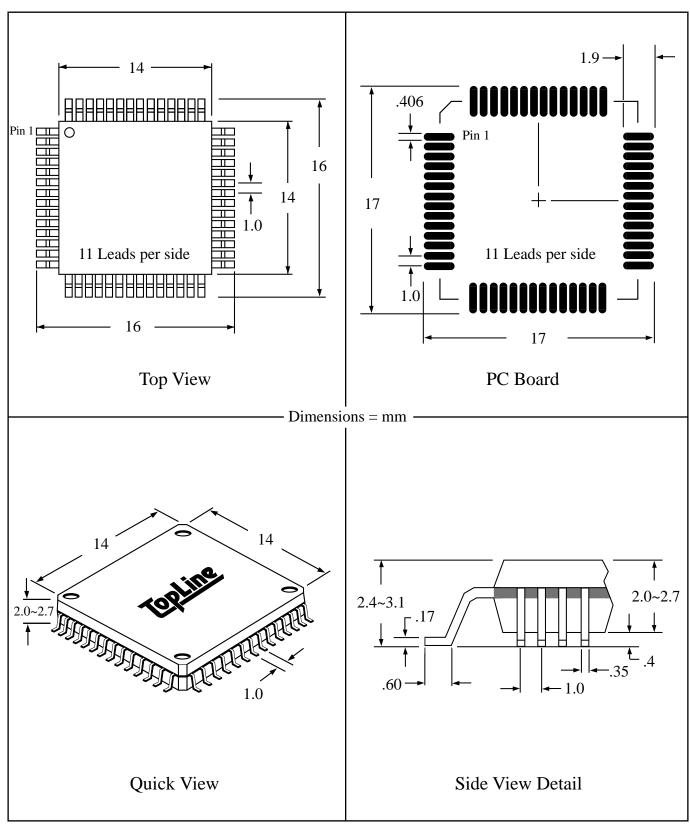
Part # **QFP44T40-2.0**

Leads 44 Pitch 1.0mm

Body Size 14mmSQ

Dwg Q44P120X.pdf





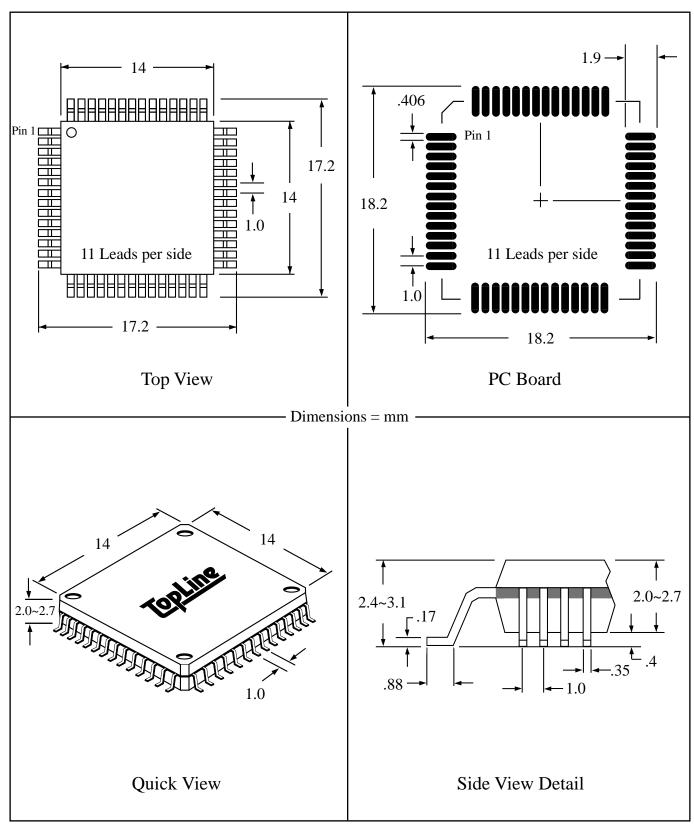
Part # **QFP44T40-3.2**

Leads 44 Pitch 1.0mm

Body Size 14mmSQ

Dwg Q44P132X.pdf





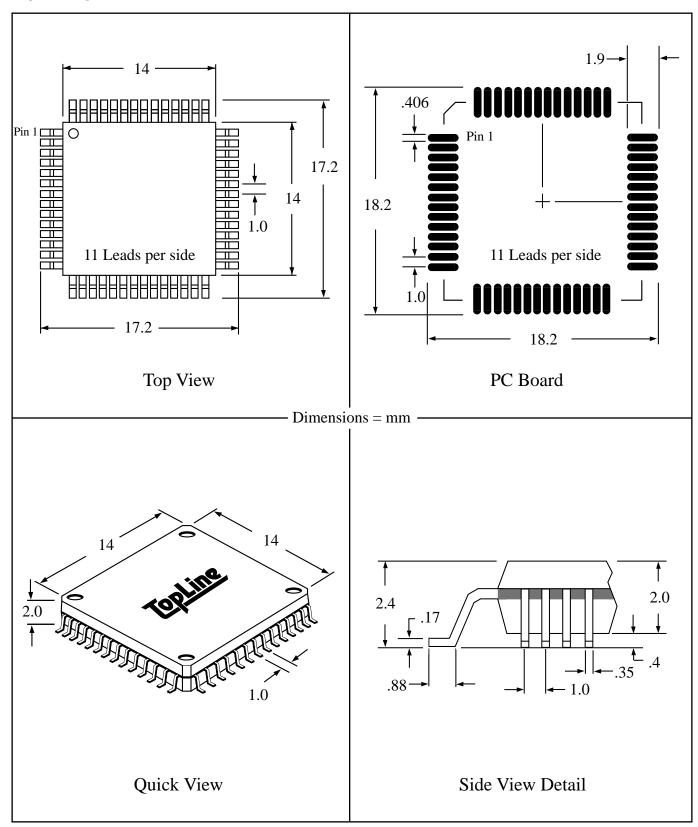
Part # **QFP44T40-2.0H**

Leads 44 Pitch 1.0mm

Body Size 14mmSQ

Dwg Q44P120.pdf





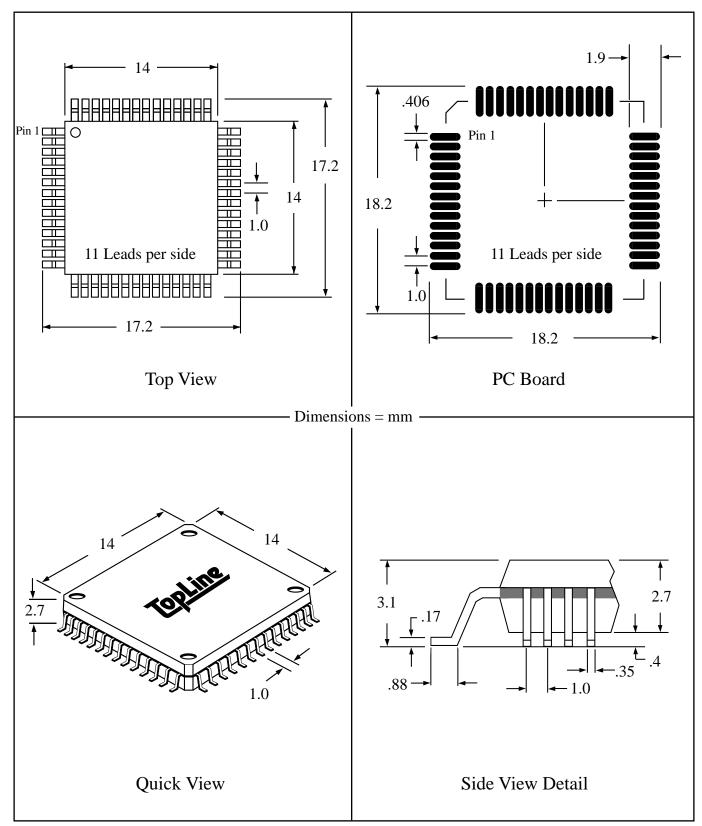
Part # **QFP44T40-3.2-2.7H**

Leads 44 Pitch 1.0mm

Body Size 14mmSQ

Dwg Q44P132H.pdf



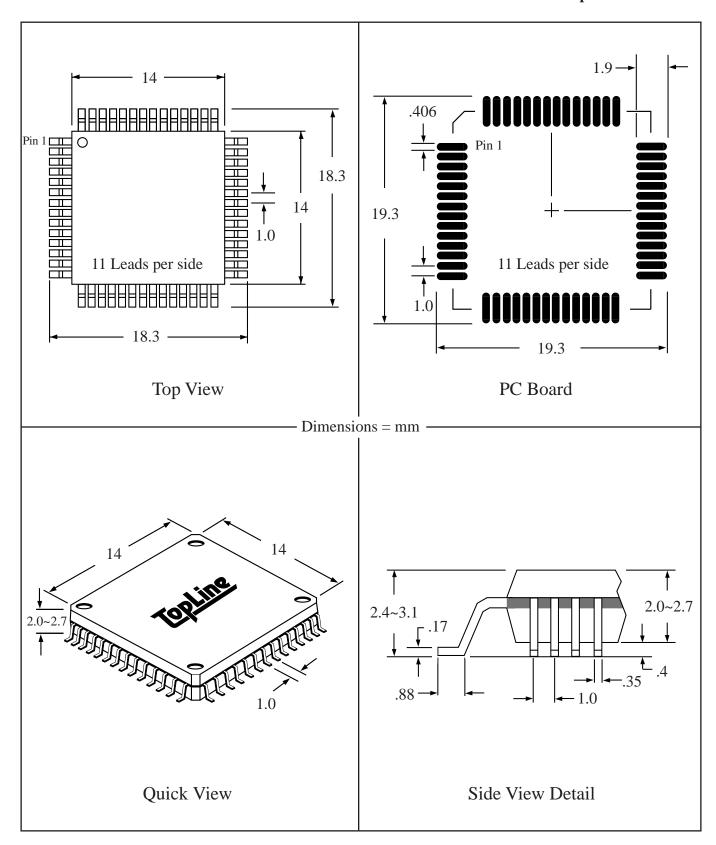


Part # **QFP44T40-4.3**

Leads 44 Pitch 1.0mm

Body Size 14mmSQ





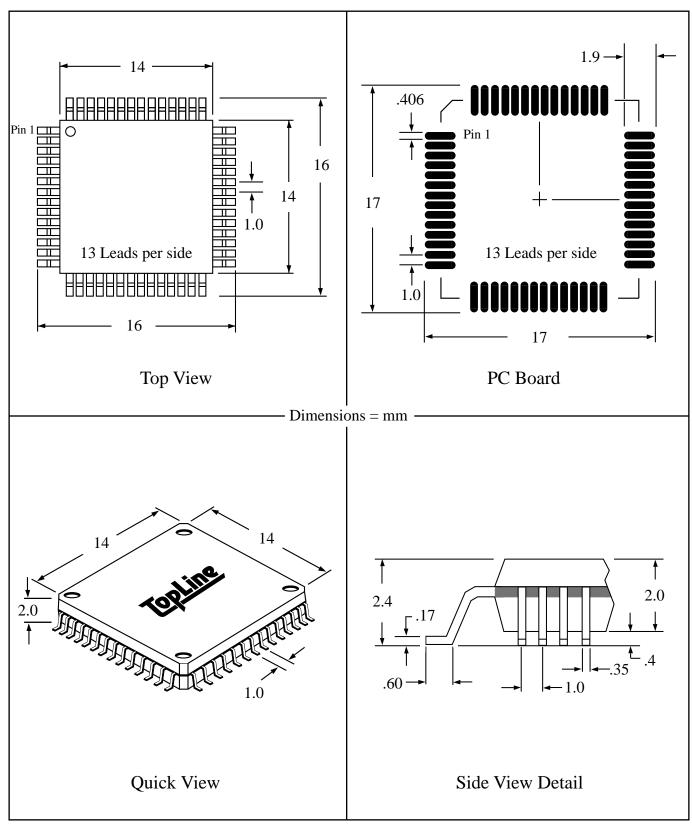
Part # **QFP52T40-2.0**

Leads 52 Pitch 1.0mm

Body Size 14mmSQ

Dwg Q52P120.pdf





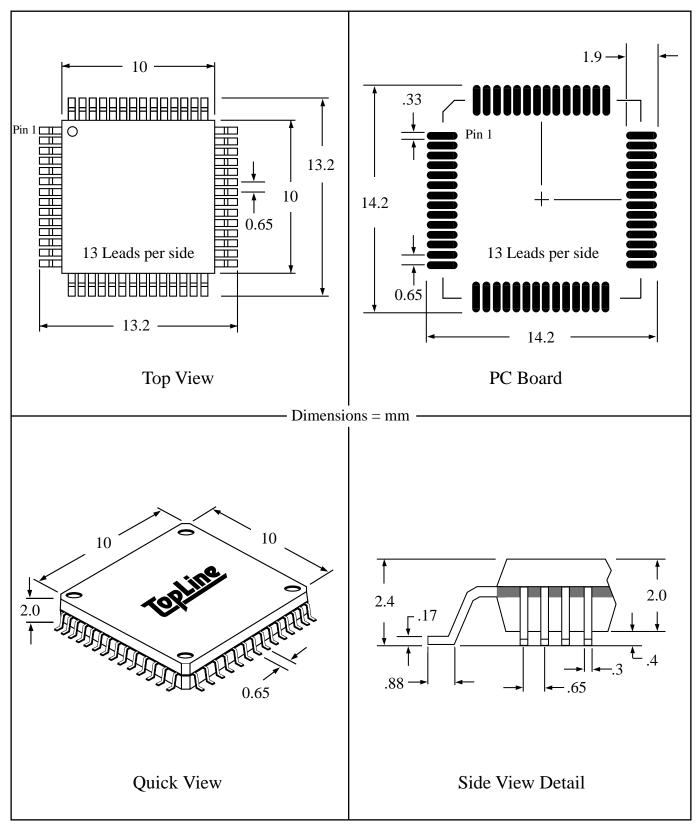
Part # QFP52T25-3.2

Leads 52 Pitch 0.65mm

Body Size 10mmSQ

Dwg Q52P632.pdf





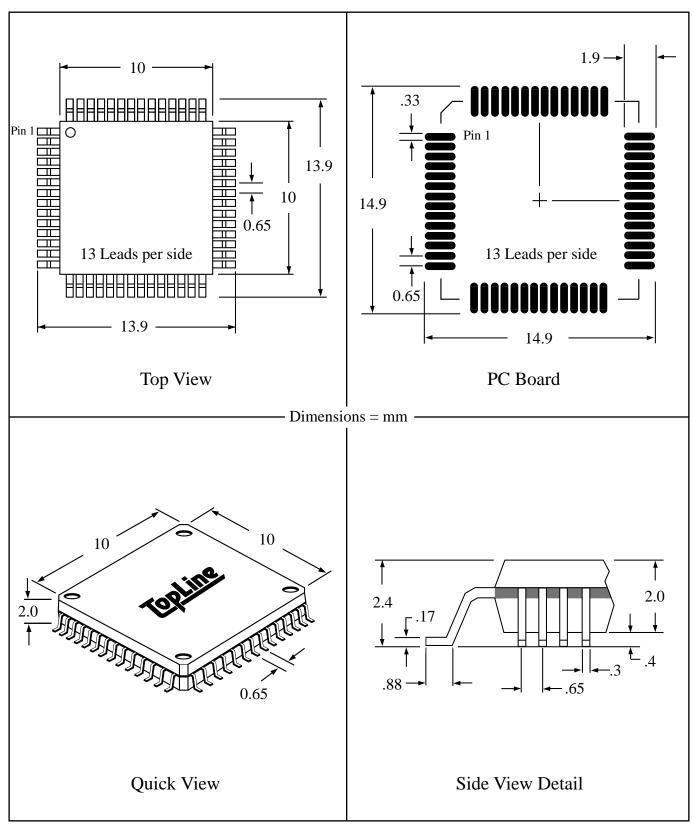
Part # **QFP52T25-3.9**

Leads 52 Pitch 0.65mm

Body Size 10mmSQ

Dwg Q52P6329.pdf





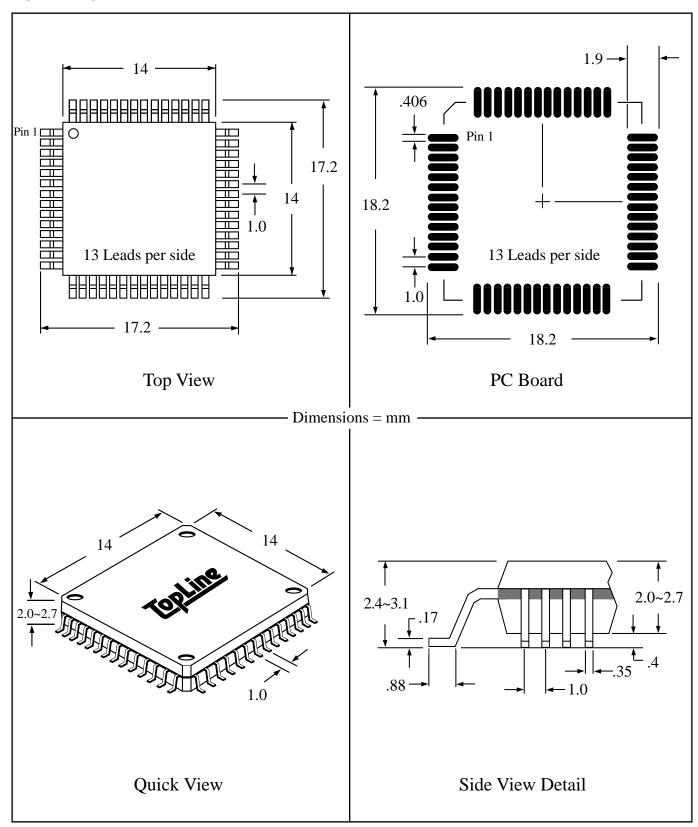
Part # QFP52T40-3.2

Leads 52 Pitch 1.0mm

Body Size 14mmSQ

Dwg Q52P132X.pdf





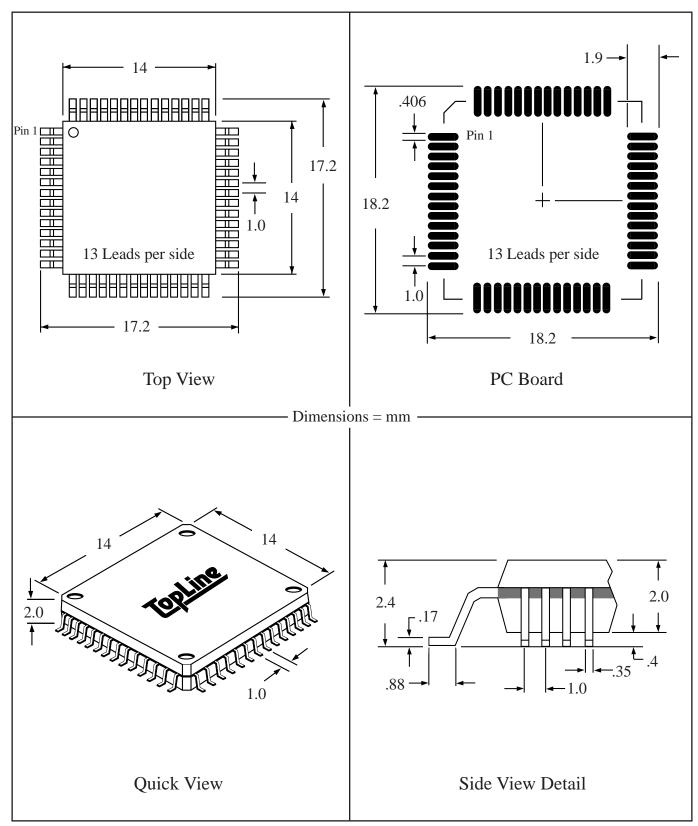
Part # QFP52T40-3.2-2.0H

Leads 52 Pitch 1.0mm

Body Size 14mmSQ

Dwg Q52P132.pdf





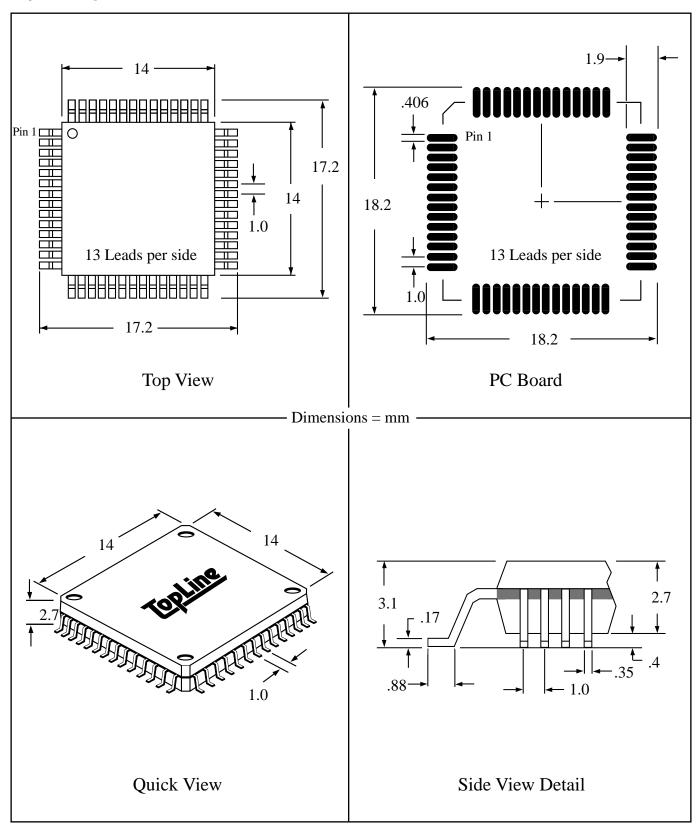
Part # **QFP52T40-3.2-2.7H**

Leads 52 Pitch 1.0mm

Body Size 14mmSQ

Dwg Q52P132H.pdf





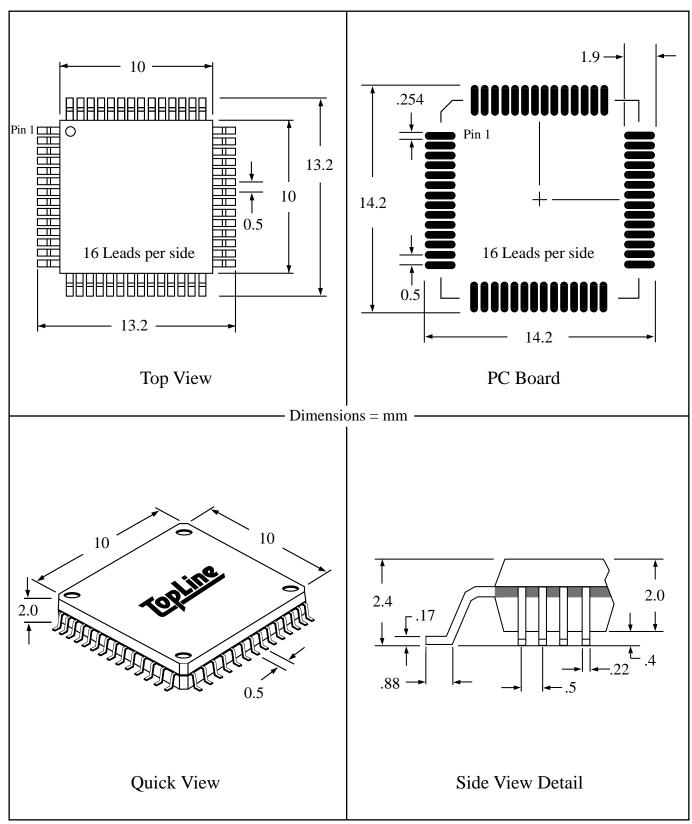
Part # QFP64T19.7-3.2

Leads 64 Pitch 0.5mm

Body Size 10mmSQ

Dwg Q64P532.pdf





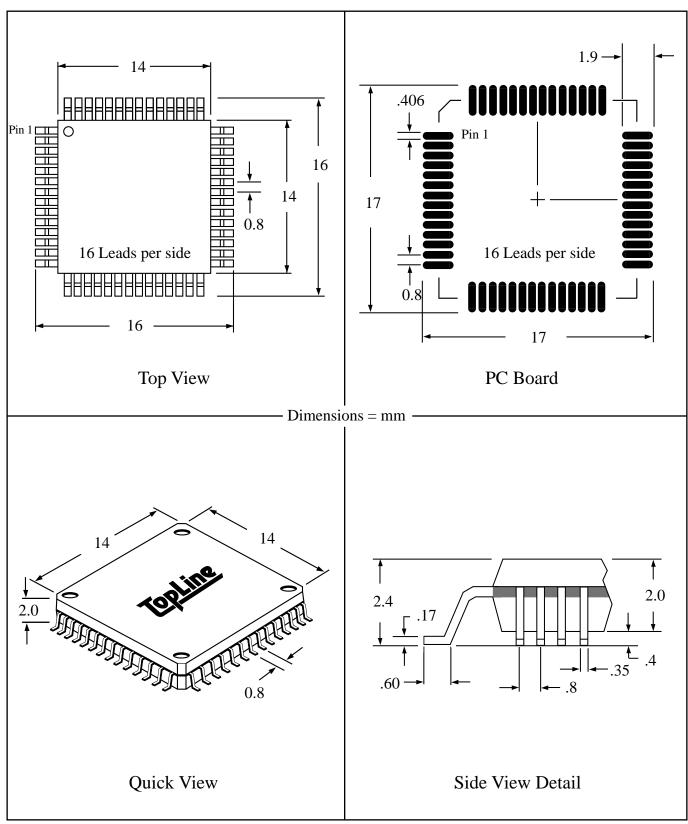
Part # **QFP64T30-2.0**

Leads 64 Pitch 0.8mm

Body Size 14mmSQ

Dwg Q64P820.pdf





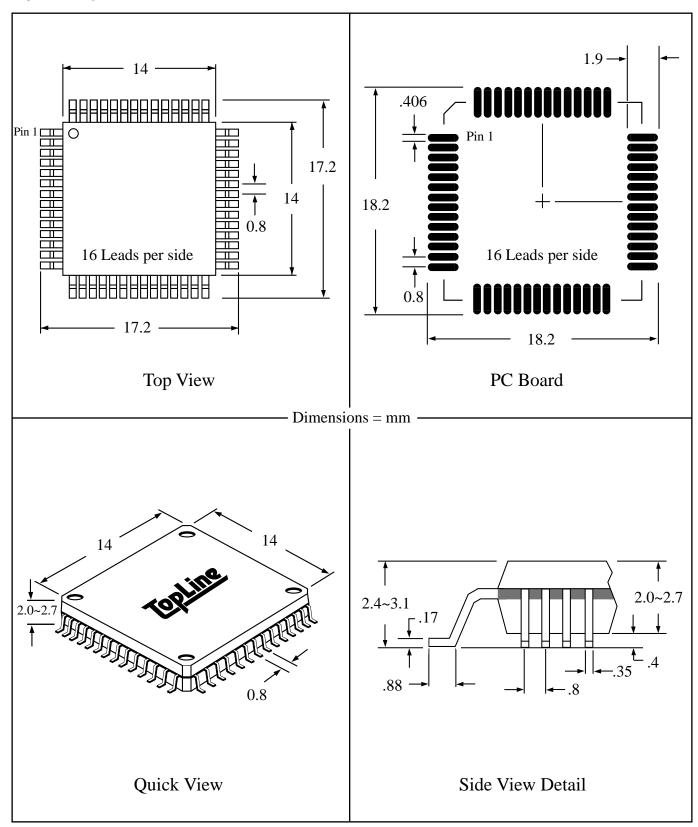
Part # **QFP64T30-3.2**

Leads 64 Pitch 0.8mm

Body Size 14mmSQ

Dwg Q64P832X.pdf





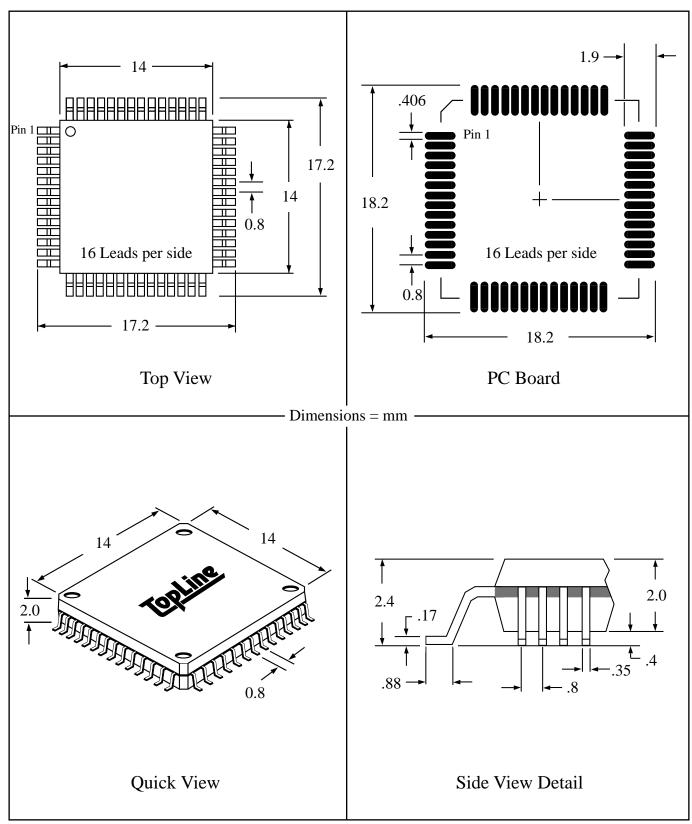
Part # QFP64T30-3.2-2.0H

Leads 64 Pitch 0.8mm

Body Size 14mmSQ

Dwg Q64P832.pdf





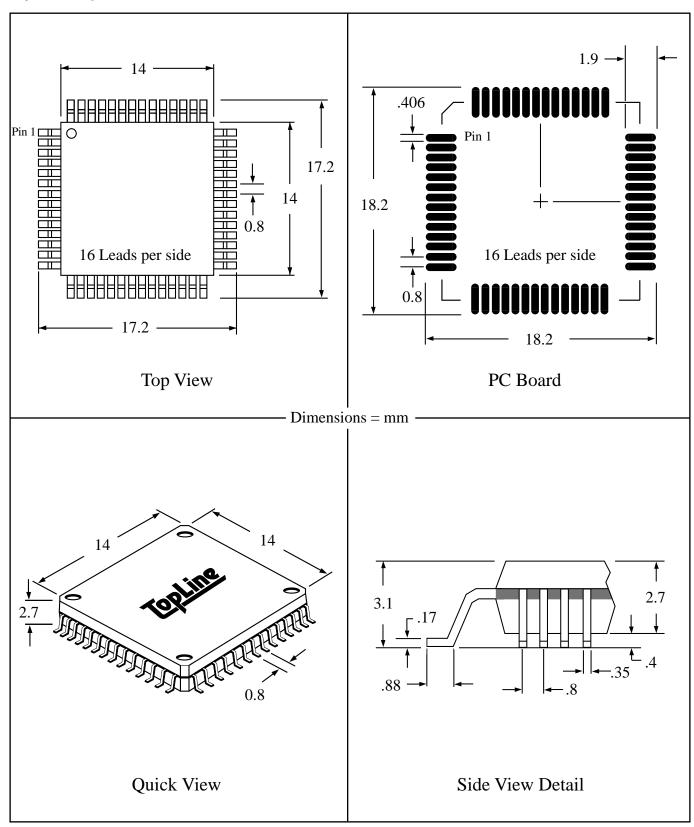
Part # **QFP64T30-3.2-2.7H**

Leads 64 Pitch 0.8mm

Body Size 14mmSQ

Dwg Q64P832H.pdf





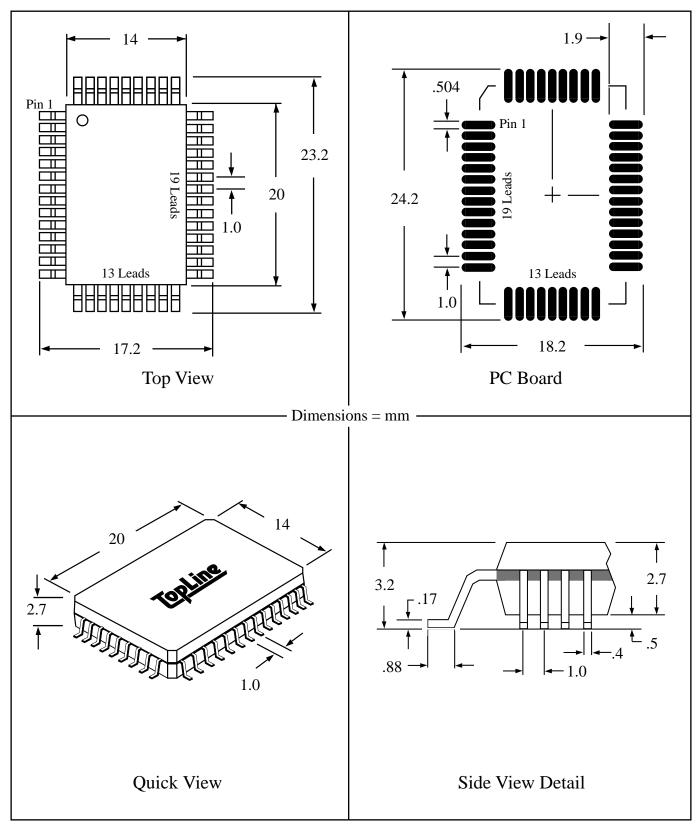
Part # **QFP64T40-3.2**

Leads 64 Pitch 1.0mm

Body Size 14mm x 2.0mm

Dwg Q64P132.pdf





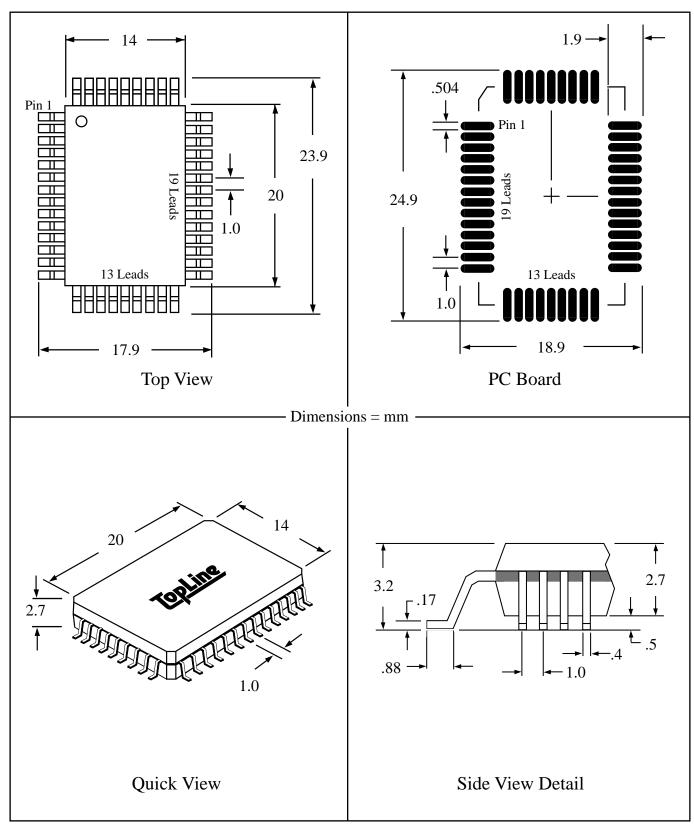
Part # **QFP64T40-3.9**

Leads 64 Pitch 1.0mm

Body Size 14mm x 2.0mm

Dwg Q64T139.pdf





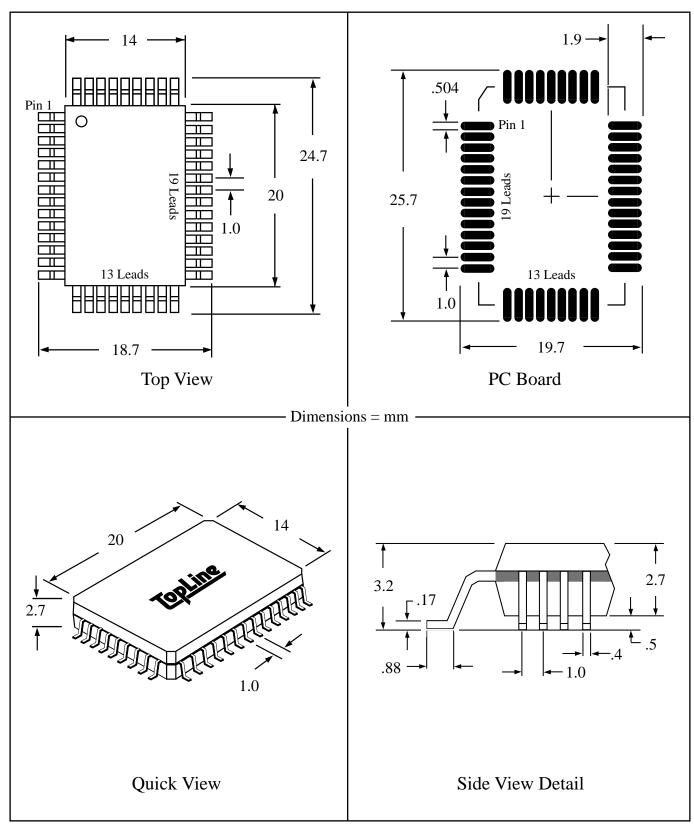
Part # **QFP64T40-4.7**

Leads 64 Pitch 1.0mm

Body Size 14mm x 2.0mm

Dwg Q64P147.pdf





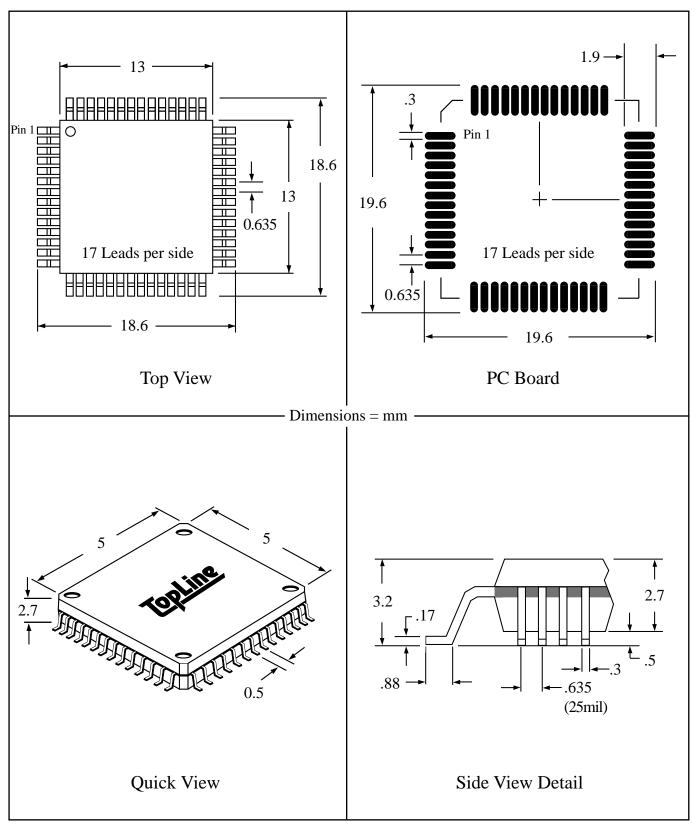
Part # **QF68T25-5.6**

Leads 68 Pitch 0.635mm

Body Size 13mmSQ

Dwg Q68P656.pdf





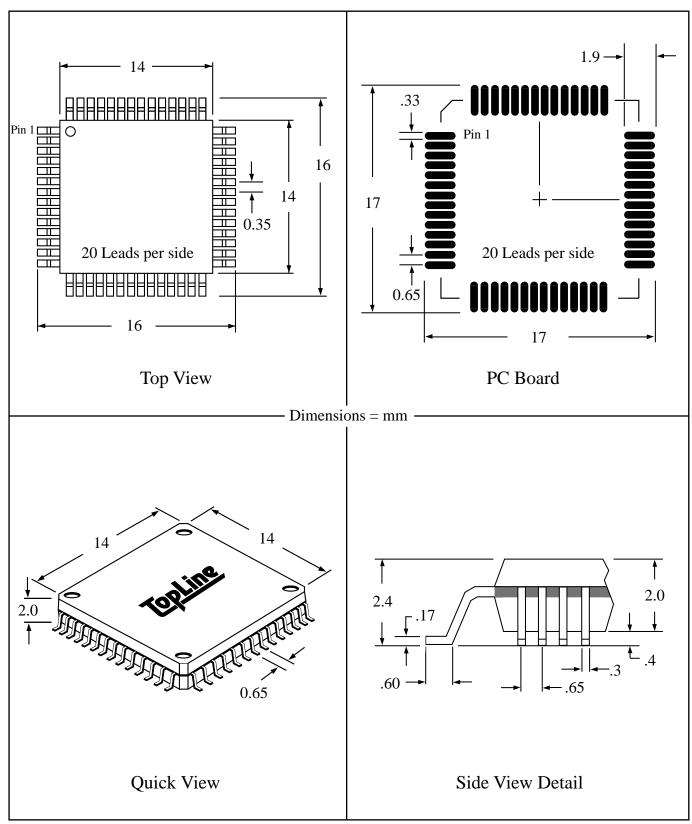
Part # **QFP80T25-2.0**

Leads **80** Pitch **0.65mm**

Body Size 14mmSQ

Dwg Q80P620.pdf





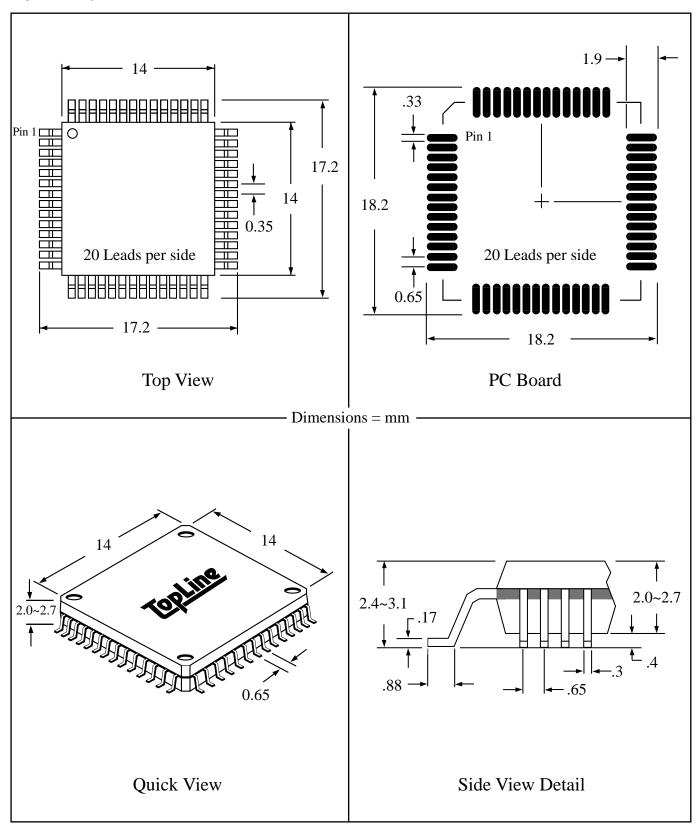
Part # **QFP80T25-3.2**

Leads **80** Pitch **0.65mm**

Body Size 14mmSQ

Dwg Q80P632X.pdf





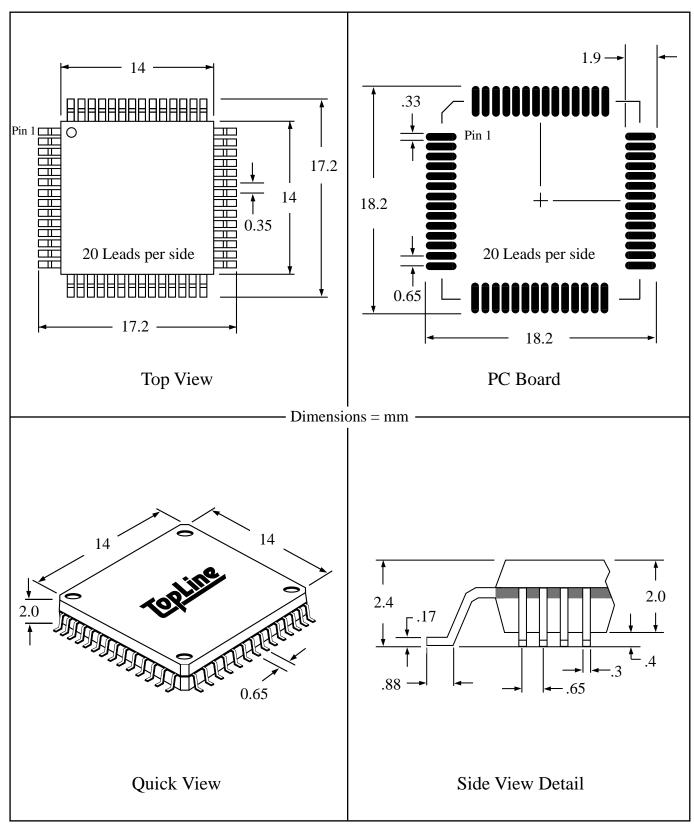
Part # **QFP80T25-3.2-2.0H**

Leads **80** Pitch **0.65mm**

Body Size 14mmSQ

Dwg Q80P632.pdf





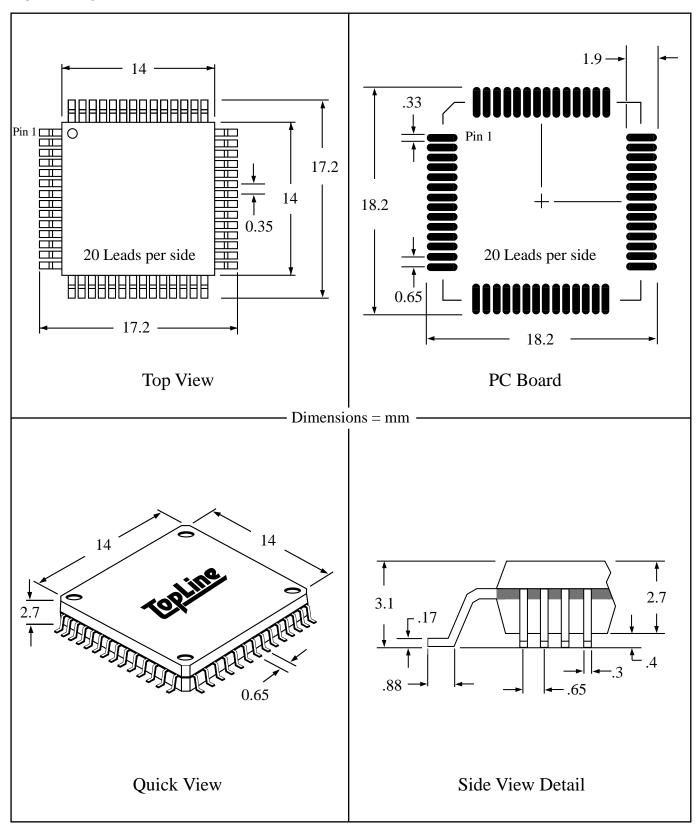
Part # **QFP80T25-3.2-2.7H**

Leads 80 Pitch 0.56mm

Body Size 14mmSQ

Dwg Q80P632H.pdf





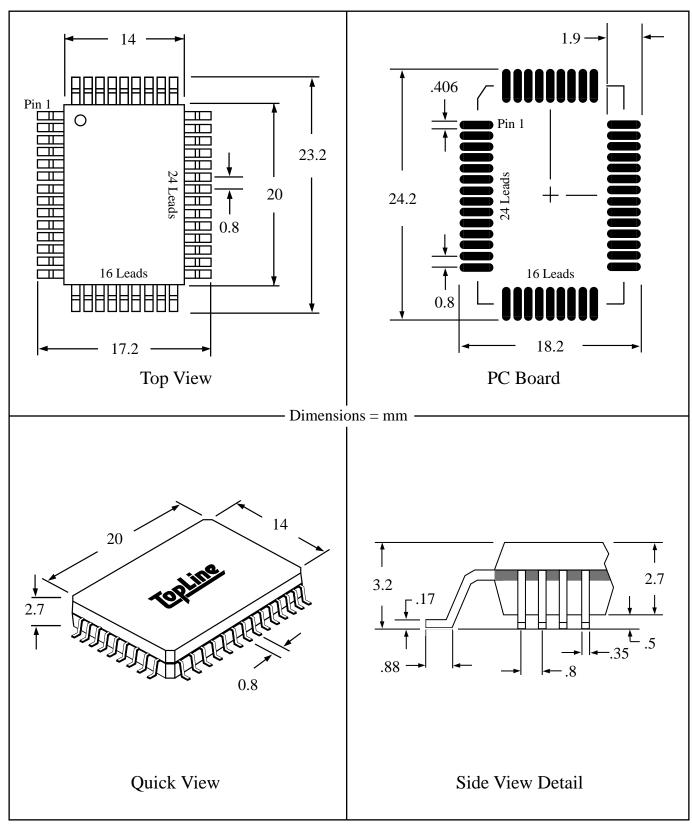
Part # **QFP80T30-3.2**

Leads 80 Pitch 0.8mm

Body Size 14mm x 20mm

Dwg Q80P832.pdf





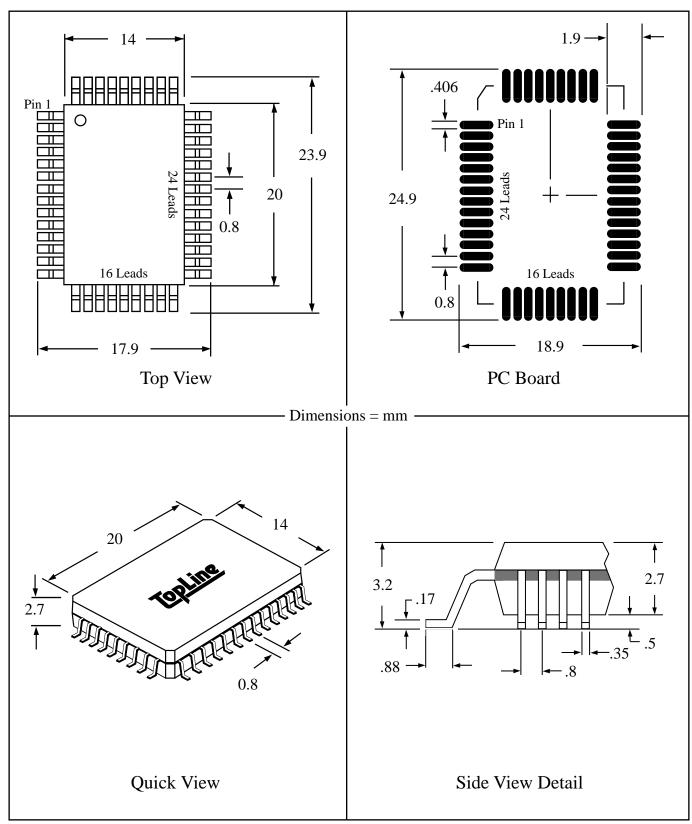
Part # **QFP80T30-3.9**

Leads 80 Pitch 0.8mm

Body Size 14mm x 20mm

Dwg Q80P839.pdf





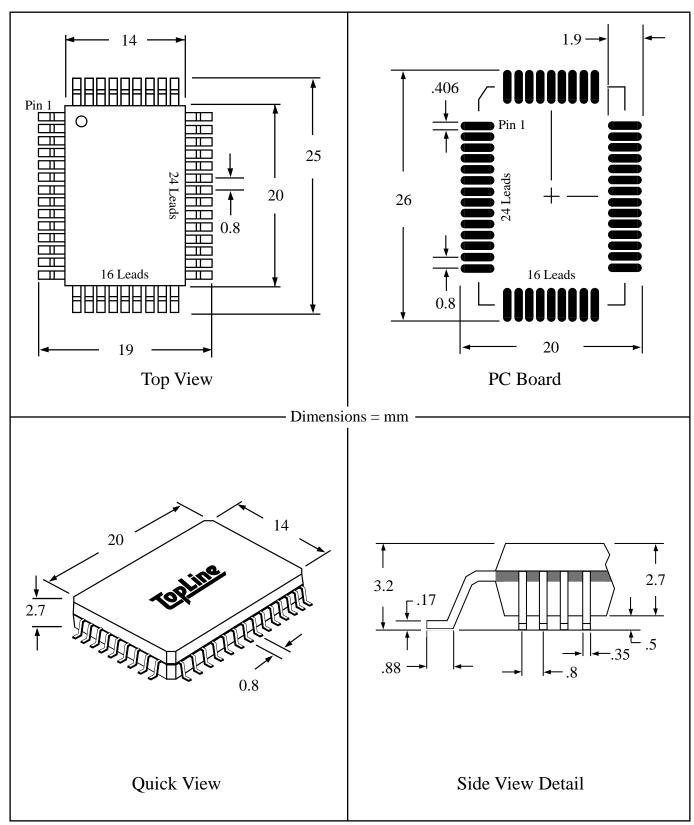
Part # **QFP80T30-5.0**

Leads 80 Pitch 0.8mm

Body Size 14mm x 20mm

Dwg Q80P850.pdf



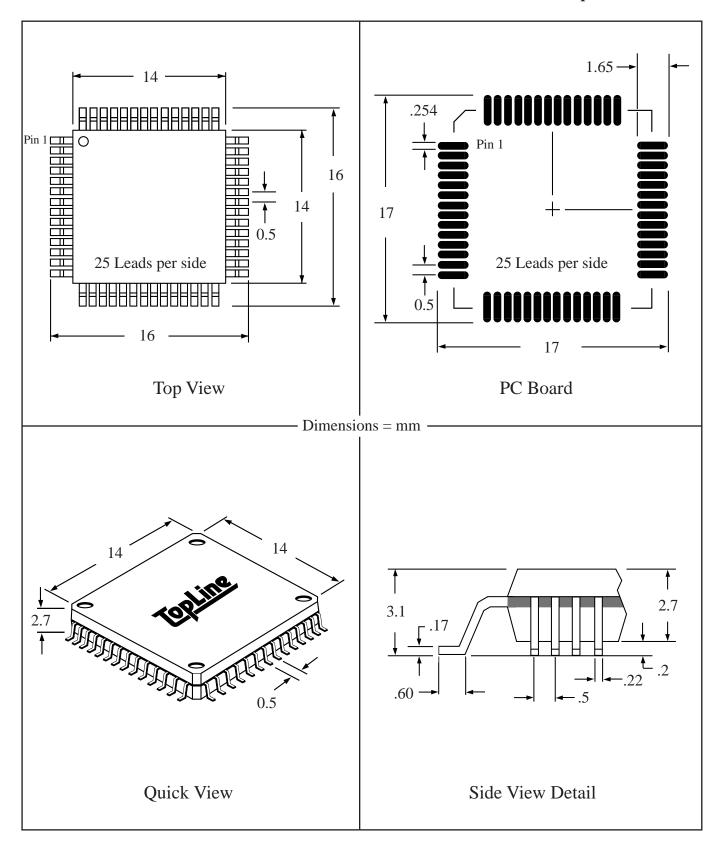


Part # **SQFP100T19.7-2.0**

Leads 100 Pitch 0.5mm

Body Size 14mmSQ





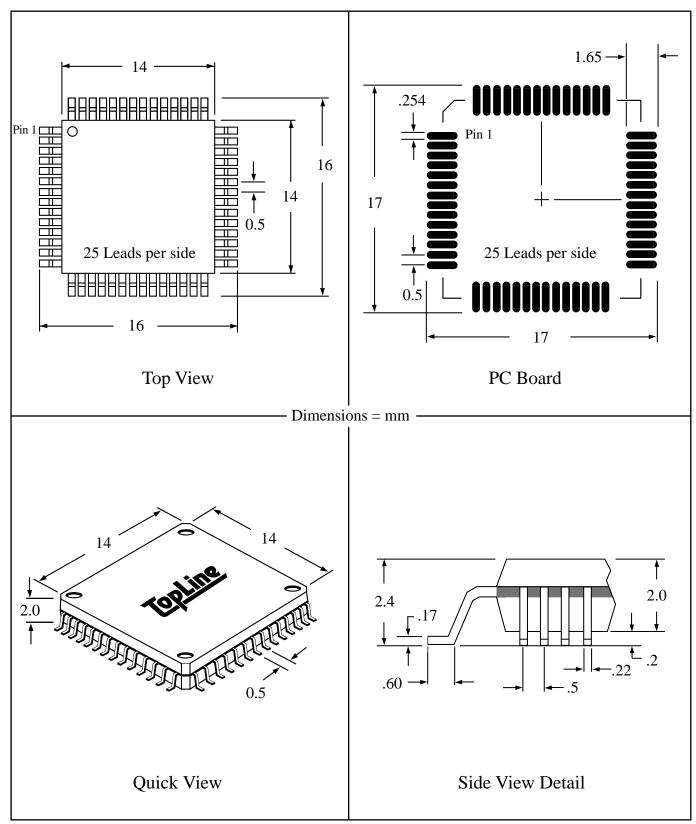
Part # **QFP100T19.7-2.0**

Leads 100 Pitch 0.5mm

Body Size 14mmSQ

Dwg Q100P520.pdf





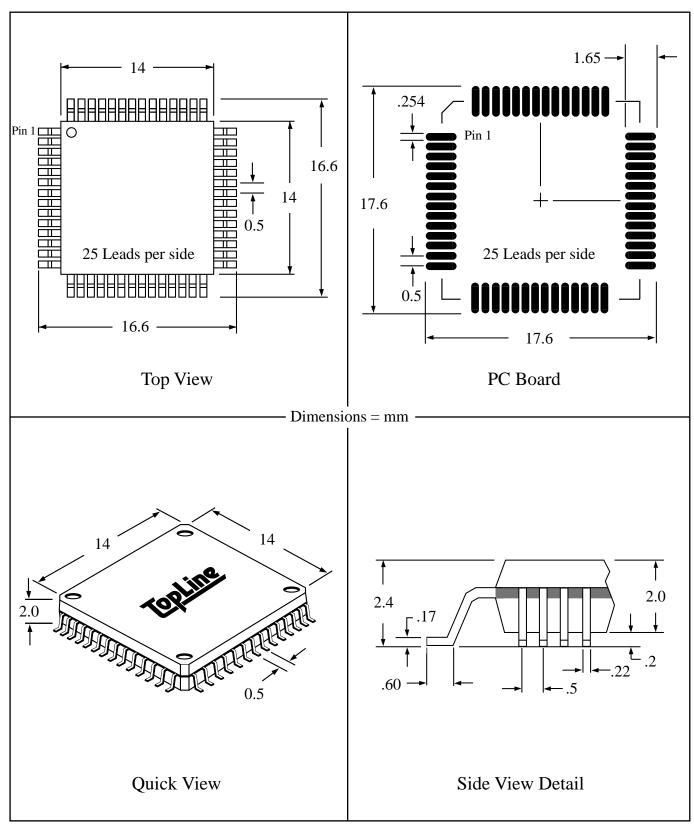
Part # **QFP100T19.7-2.6**

Leads 100 Pitch 0.5mm

Body Size 14mmSQ

Dwg Q100P526.pdf





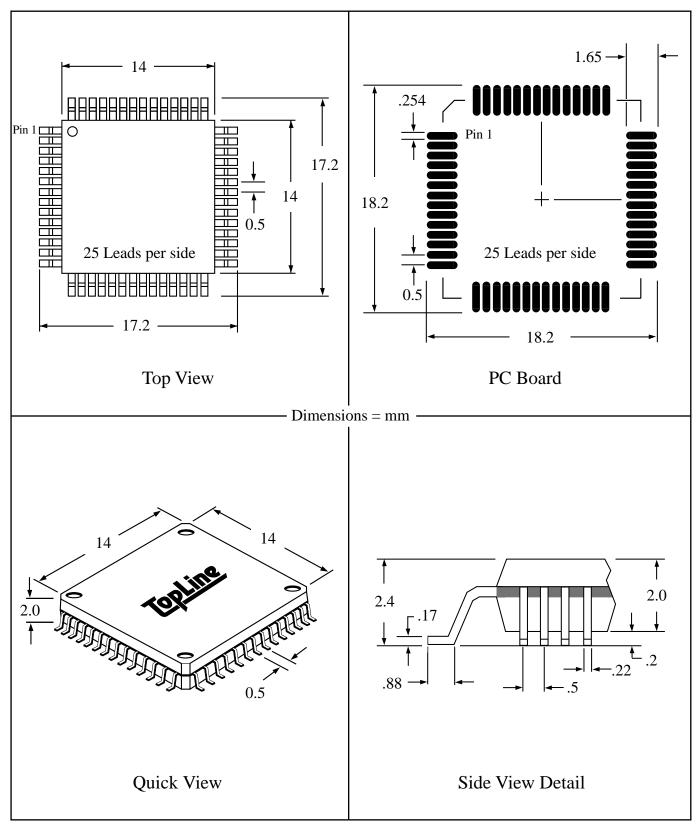
Part # QFP100T19.7-3.2-2.0H

Leads 100 Pitch 0.5mm

Body Size 14mmSQ

Dwg Q100P532.pdf





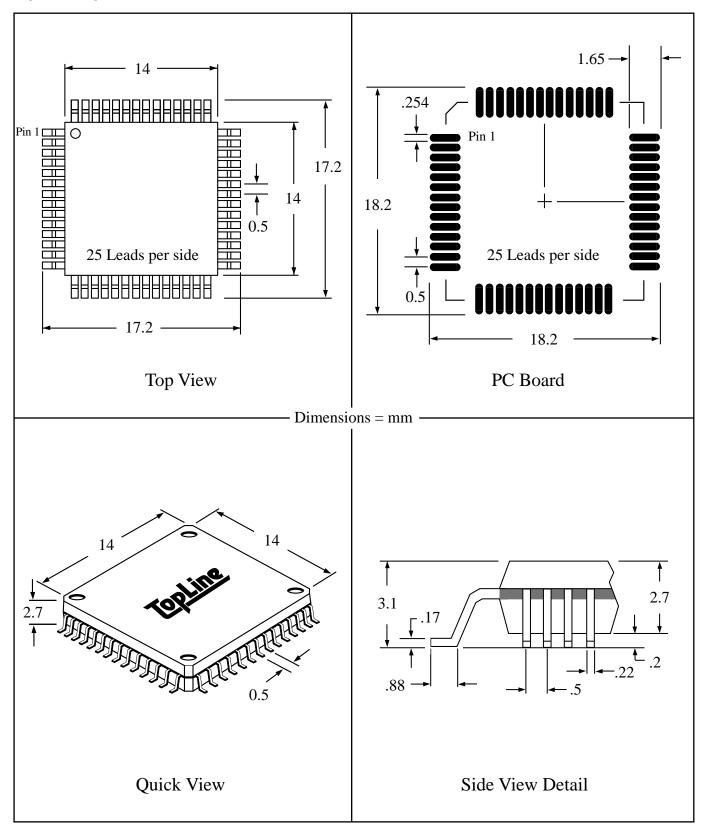
Part # QFP100T19.7-3.2-2.7H

Leads 100 Pitch 0.5mm

Body Size 14mmSQ

Dwg Q100P53H.pdf





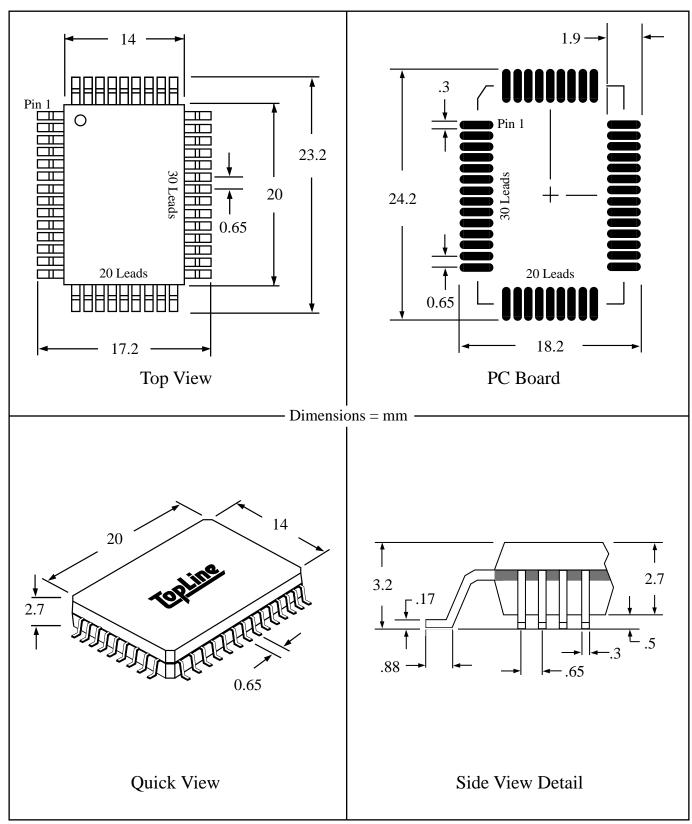
Part # QFP100T25-3.2

Leads 100 Pitch 0.65mm

Body Size 14mm x 20mm

Dwg Q100P632.pdf





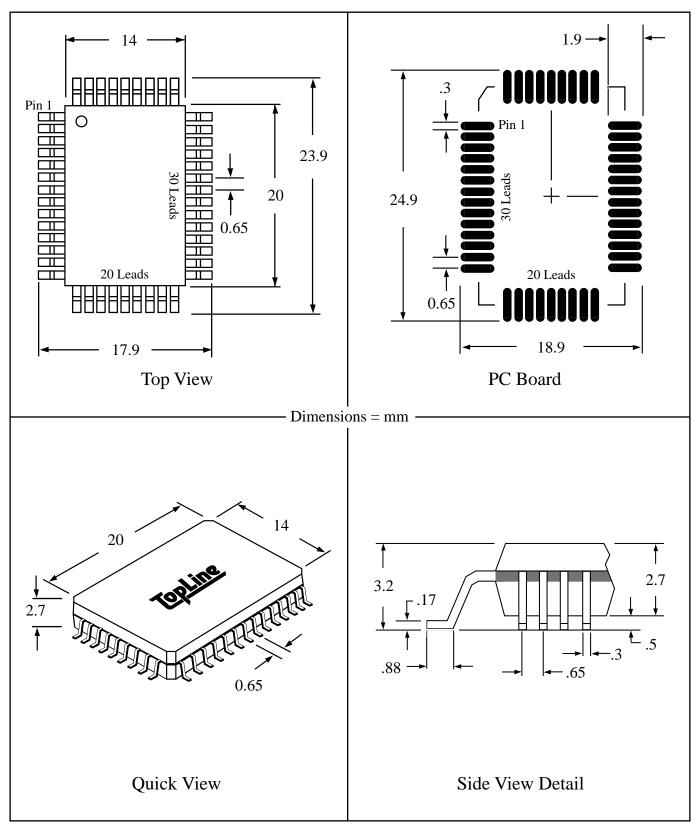
Part # **QFP100T25-3.9**

Leads 100 Pitch 0.65mm

Body Size 14mm x 20mm

Dwg Q100P639.pdf



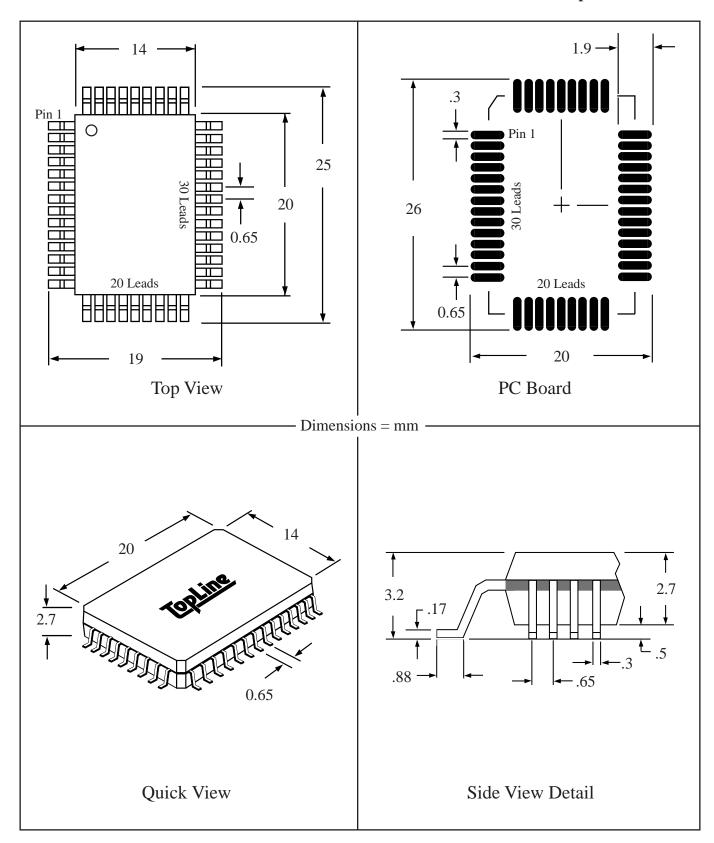


Part # **QFP100T25-5.0**

Leads 100 Pitch 0.65mm

Body Size 14mm x 20mm



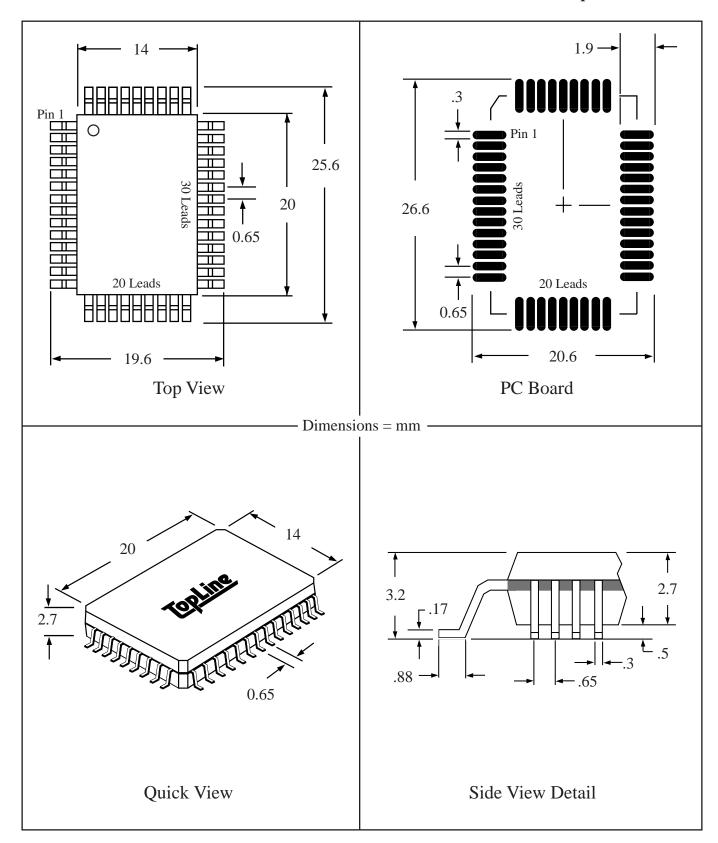


Part # **QFP100T25-5.6**

Leads 100 Pitch 0.65mm

Body Size 14mm x 20mm





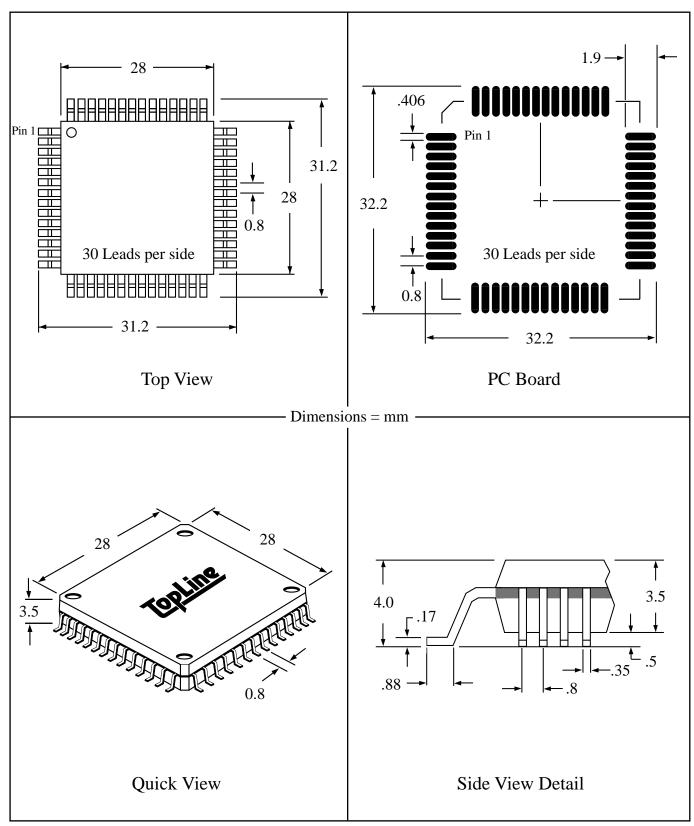
Part # QFP120T30-3.2

Leads 120 Pitch 0.8mm

Body Size 28mmSQ

Dwg Q120P832.pdf





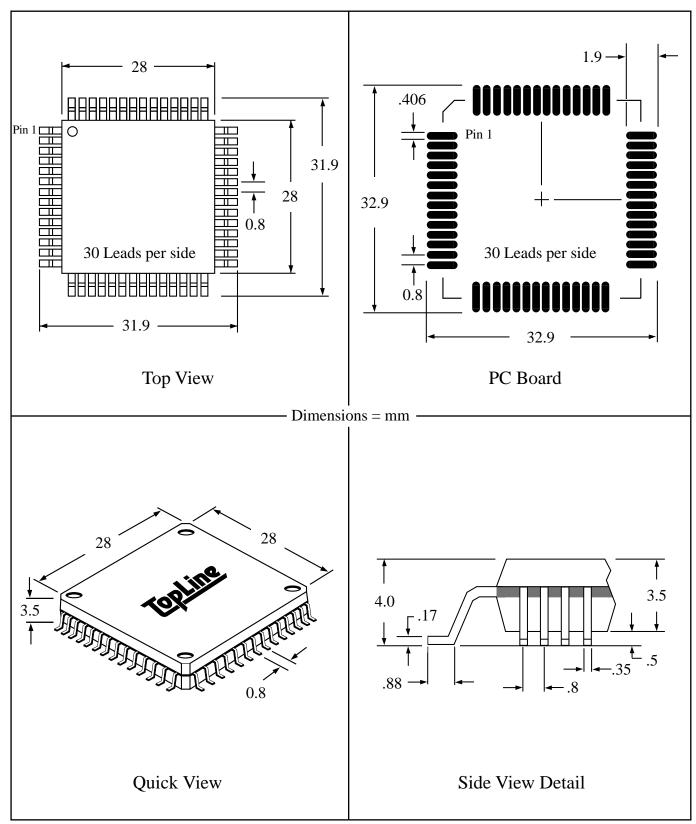
Part # **QFP120T30-3.9**

Leads 120 Pitch 0.8mm

Body Size 28mmSQ

Dwg Q120P839.pdf





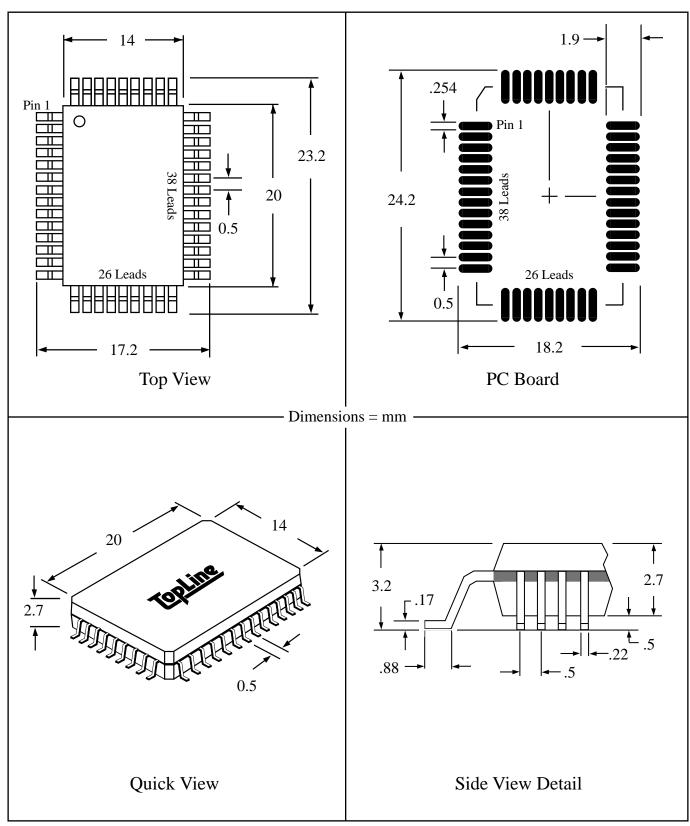
Part # **QFP128T19.7-3.2**

Leads 128 Pitch 0.5mm

Body Size 14mm x 20mm

Dwg Q128P532.pdf





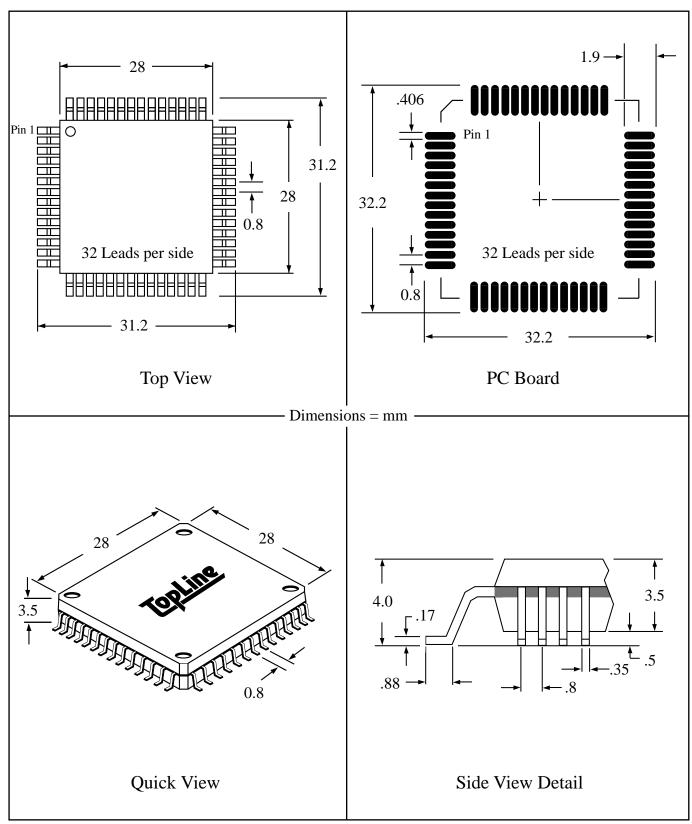
Part # QFP128T30-3.2

Leads 128 Pitch 0.8mm

Body Size 28mmSQ

Dwg Q128P832.pdf





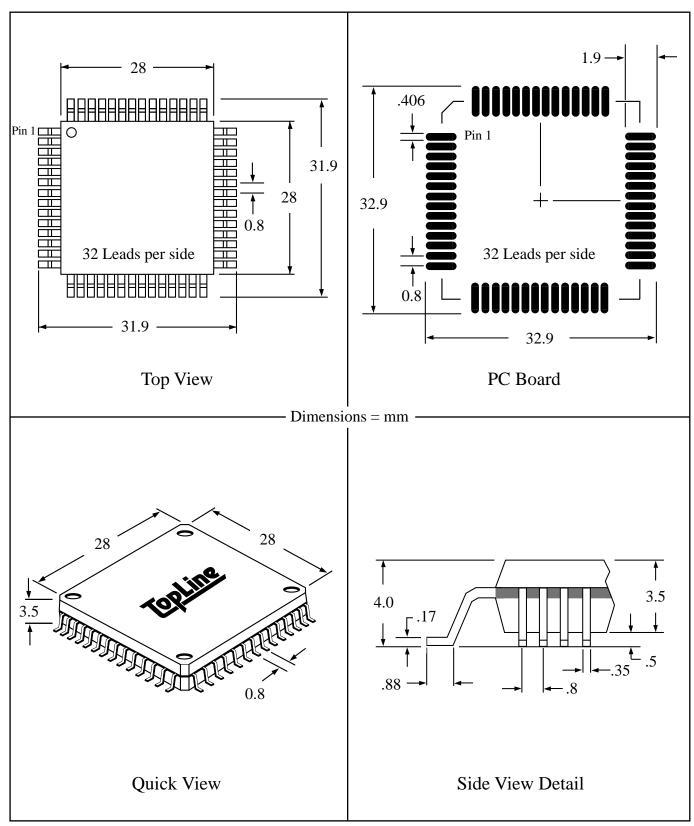
Part # **QFP128T30-3.9**

Leads 128 Pitch 0.8mm

Body Size 28mmSQ

Dwg Q128P839.pdf



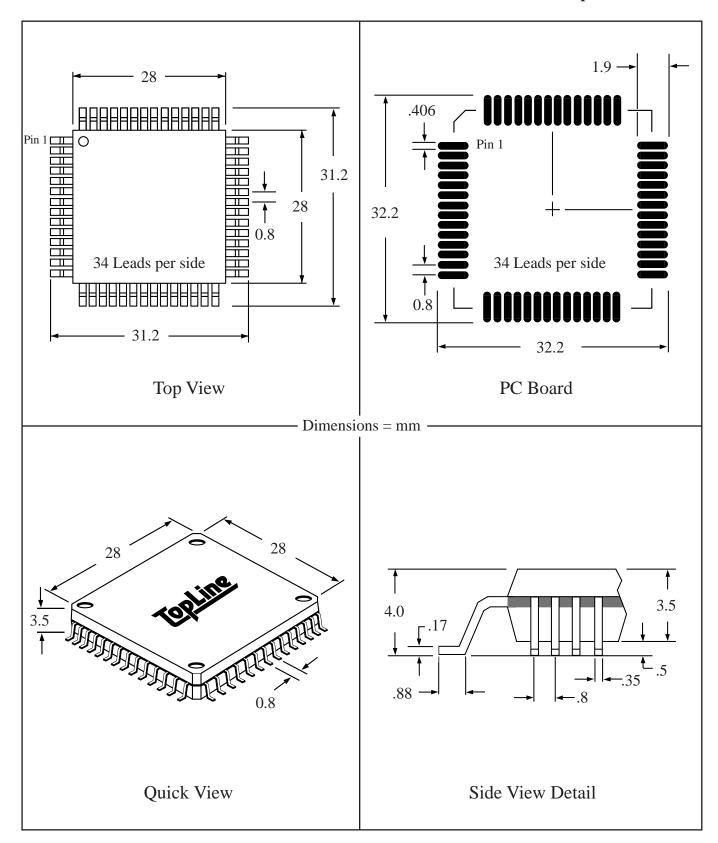


Part # QFP136T30-3.2

Leads 136 Pitch 0.8mm

Body Size 28mmSQ



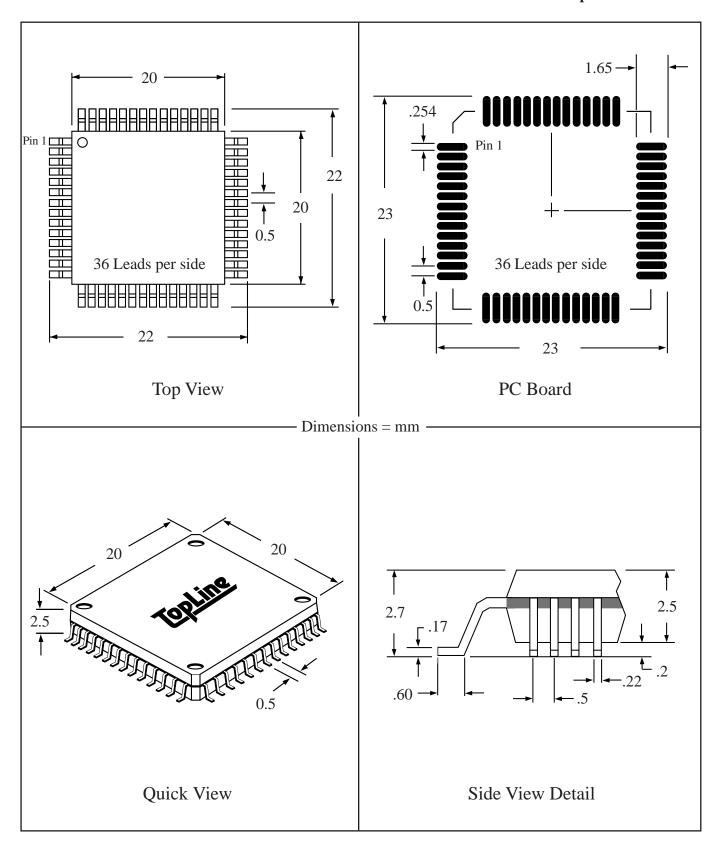


Part # **SQFP144T19.7-2.0**

Leads 144 Pitch 0.5mm

Body Size 20mmSQ





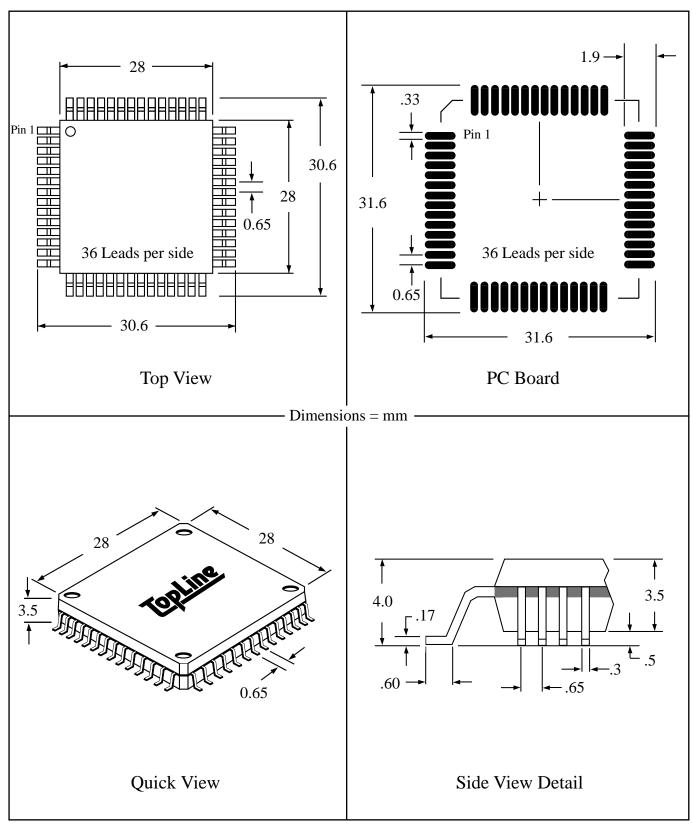
Part # QFP144T25-2.6

Leads 144 Pitch 0.65mm

Body Size 28mmSQ

Dwg Q144P626.pdf





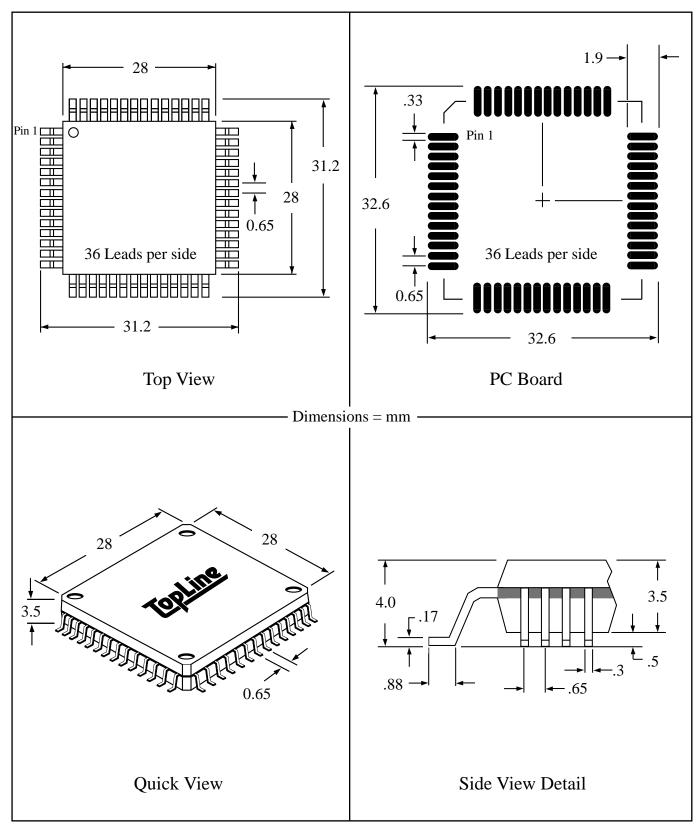
Part # QFP144T25-3.2

Leads 144 Pitch 0.65mm

Body Size 28mmSQ

Dwg Q144P632.pdf





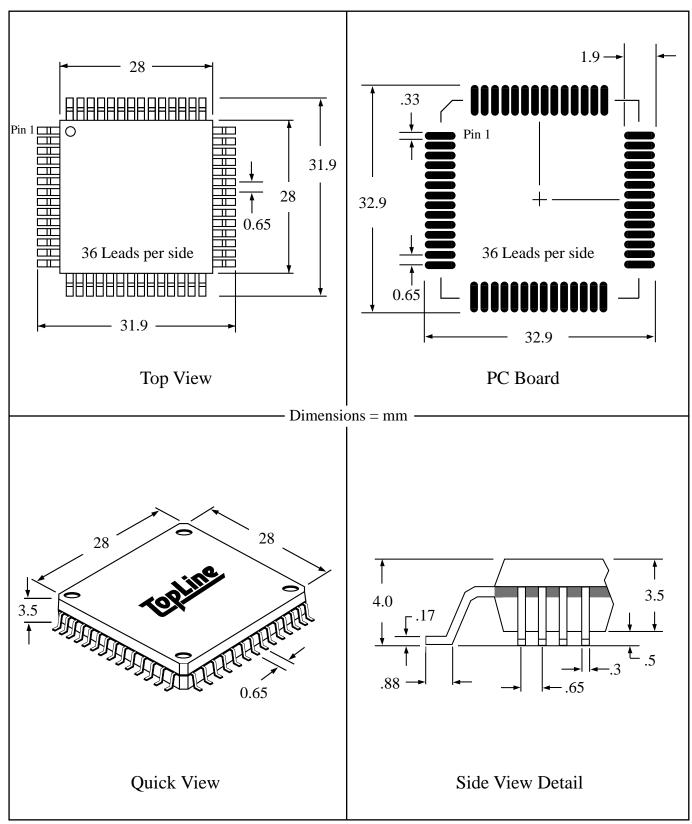
Part # **QFP144T25-3.9**

Leads 144 Pitch 0.65mm

Body Size 28mmSQ

Dwg Q144P639.pdf





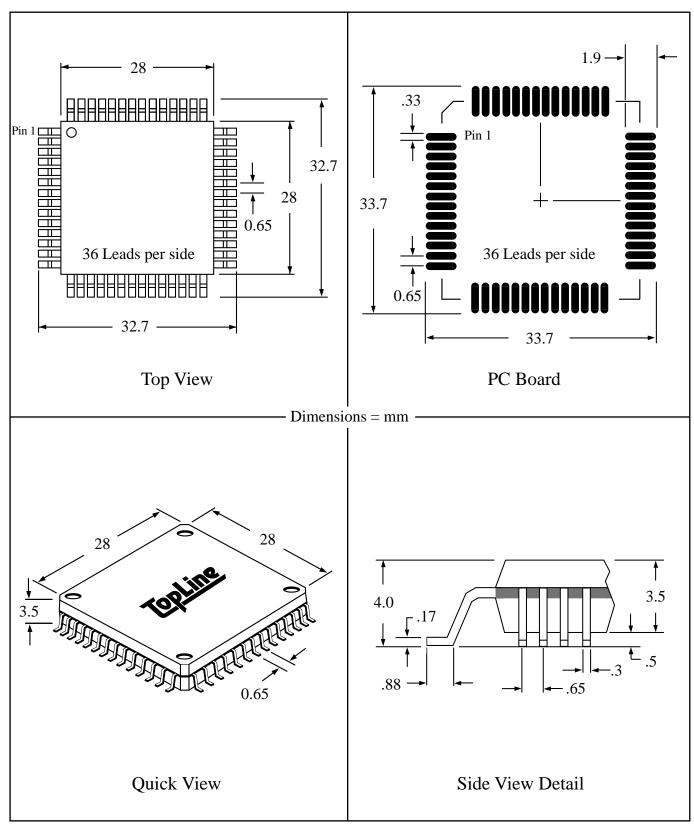
Part # **QFP144T25-4.7**

Leads 144 Pitch 0.65mm

Body Size 28mmSQ

Dwg Q144P647.pdf





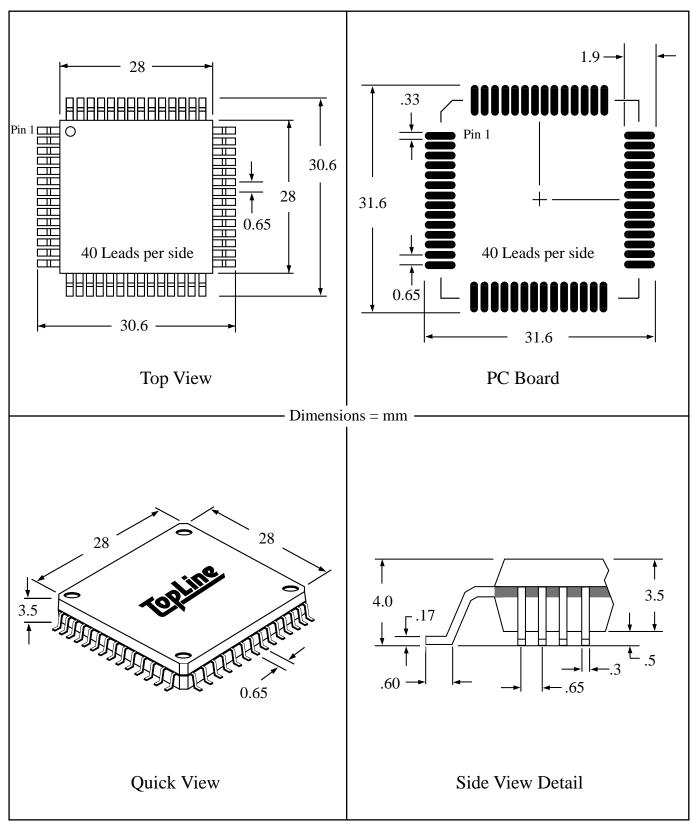
Part # **QFP160T25-2.6**

Leads **160** Pitch **0.65mm**

Body Size 28mmSQ

Dwg Q160P626.pdf





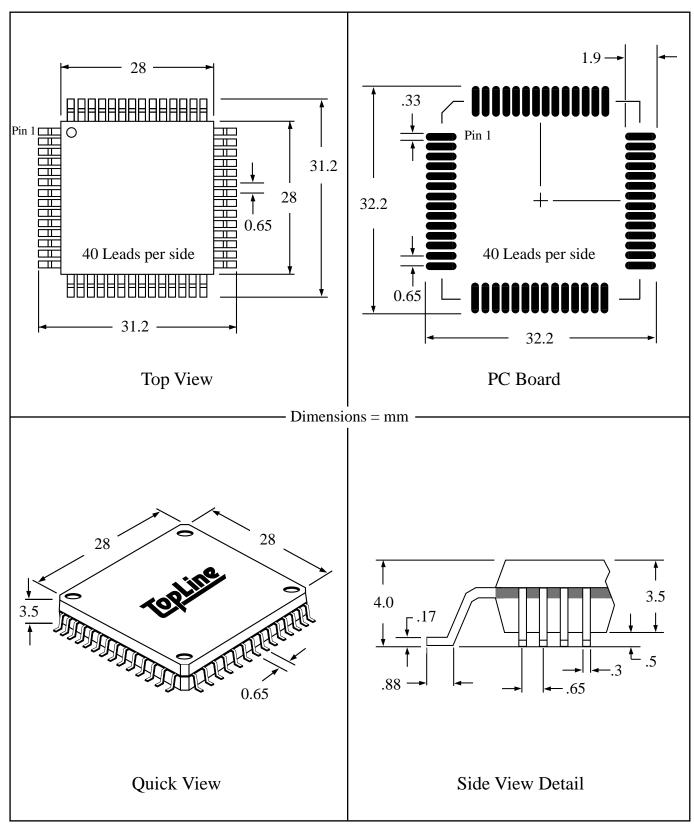
Part # QFP160T25-3.2

Leads **160** Pitch **0.65mm**

Body Size 28mmSQ

Dwg Q160P632.pdf





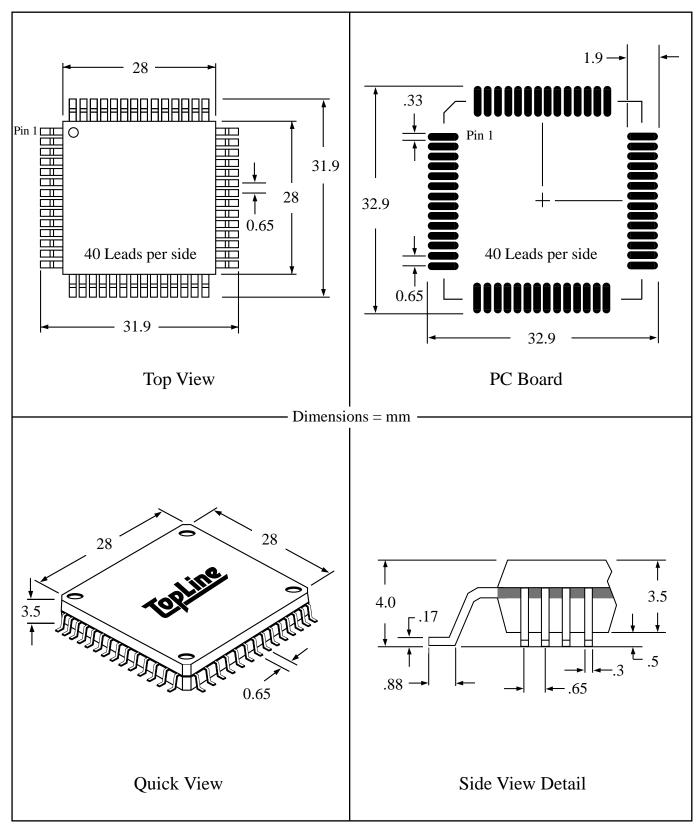
Part # **QFP160T25-3.9**

Leads **160** Pitch **0.65mm**

Body Size 28mmSQ

Dwg Q160P639.pdf





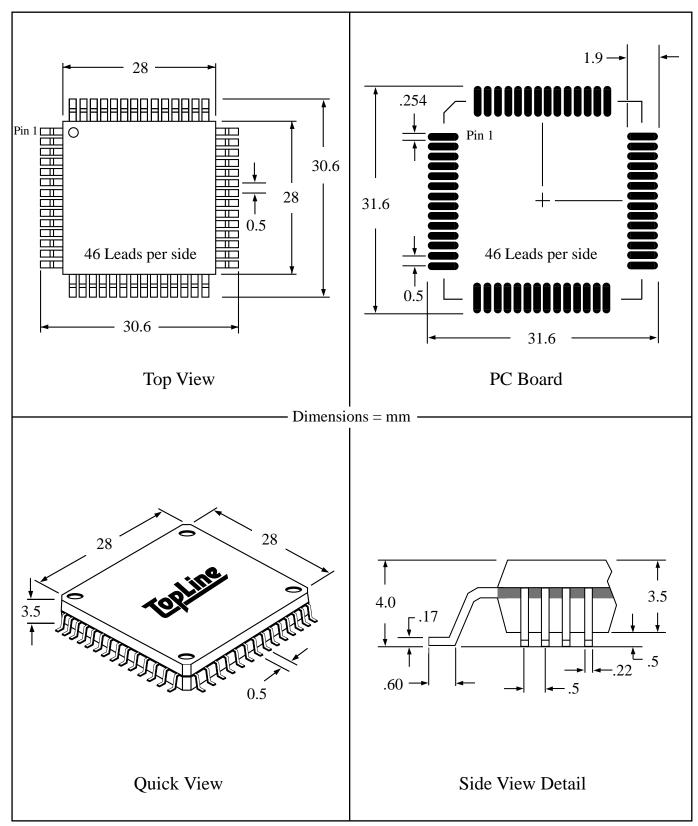
Part # **QFP184T19.7-2.6**

Leads 184 Pitch 0.5mm

Body Size 28mmSQ

Dwg Q184P526.pdf





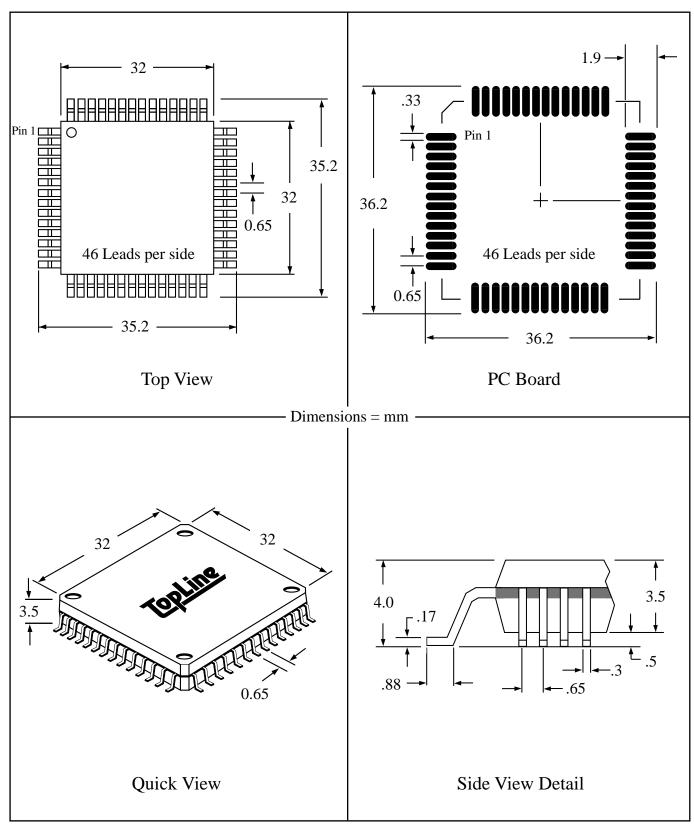
Part # QFP184T25-3.2

Leads 184 Pitch 0.65mm

Body Size 32mmSQ

Dwg Q184P632.pdf





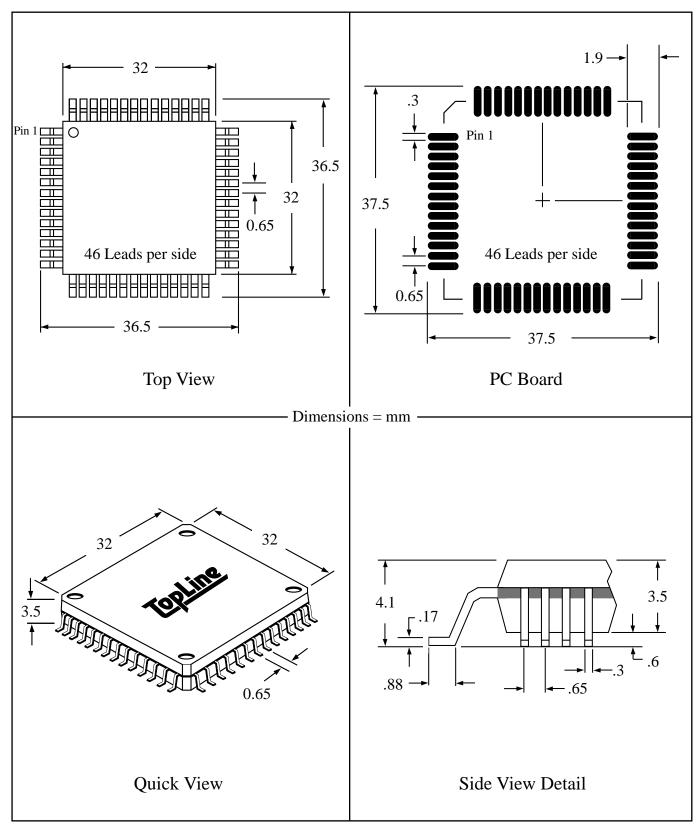
Part # QFP184T25-4.5

Leads 184 Pitch 0.65mm

Body Size 32mmSQ

Dwg Q184P645.pdf





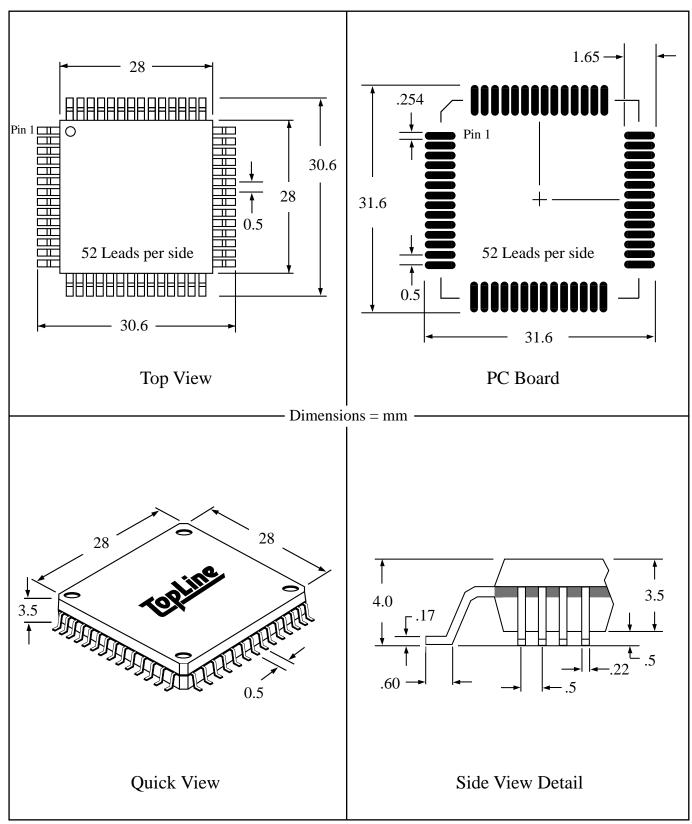
Part # **QFP208T19.7-2.6**

Leads 208 Pitch 0.5mm

Body Size 28mmSQ

Dwg Q208P526.pdf



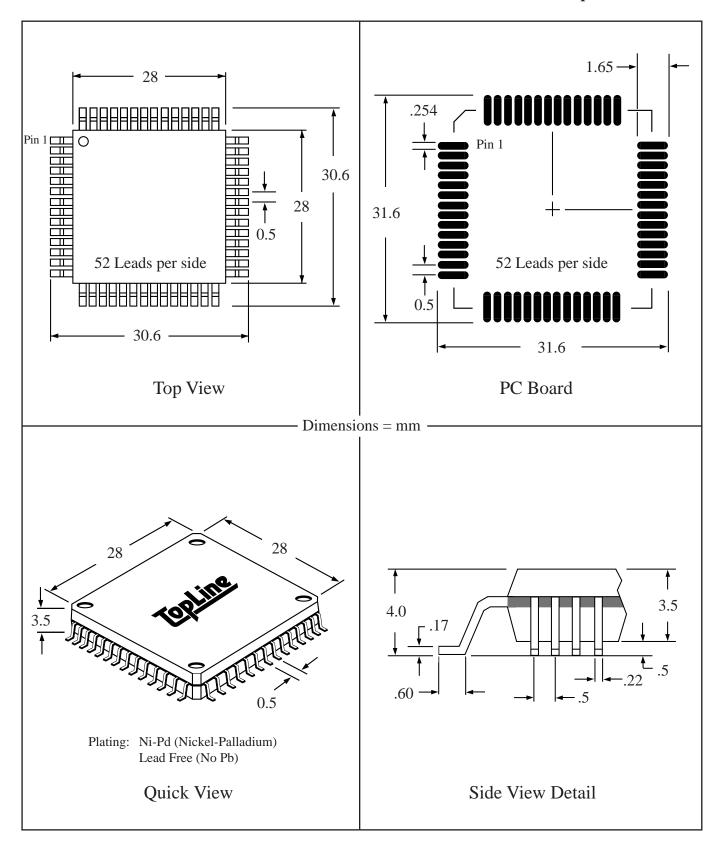


Part # QFP208T19.7F-2.6 LEAD FREE

Leads 208 Pitch 0.5mm

Body Size 28mm SQ





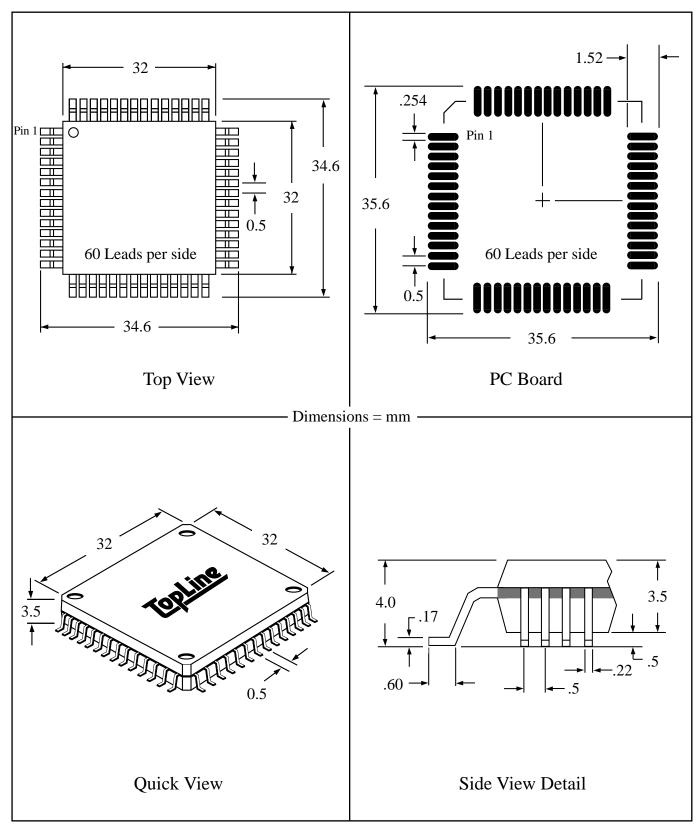
Part # **QFP240T19.7-2.6**

Leads 240 Pitch 0.5mm

Body Size 32mmSQ

Dwg Q240P526.pdf





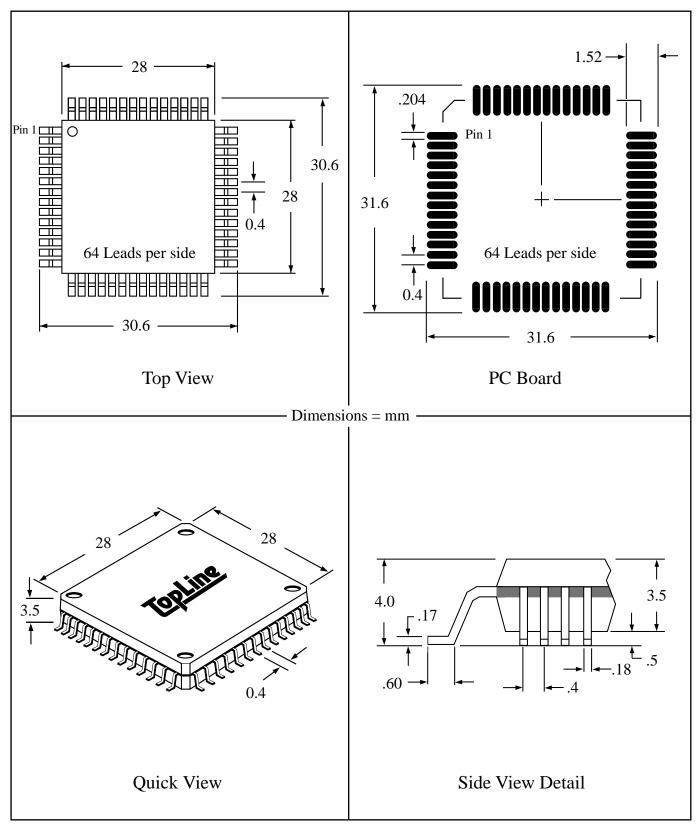
Part # **QFP256T15.7-2.6**

Leads 256 Pitch 0.4mm

Body Size 28mmSQ

Dwg Q256P426.pdf





Part # **QFP304T19.7-2.6**

Leads 304 Pitch 0.5mm

Body Size 40mmSQ

Dwg Q304P526.pdf



