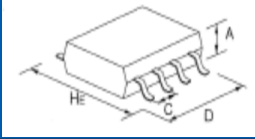
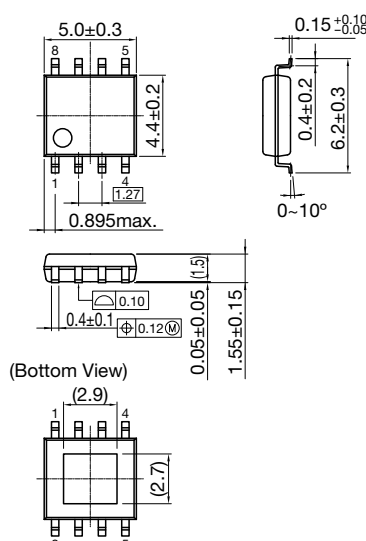
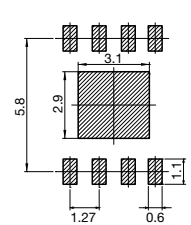
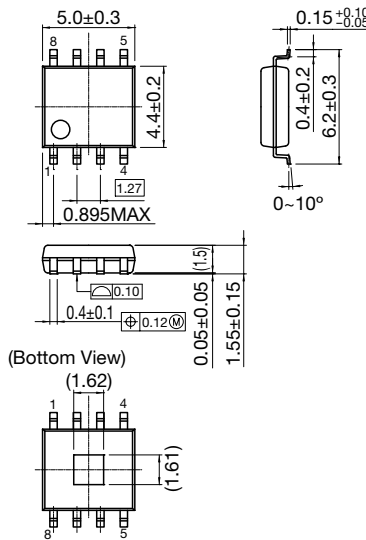
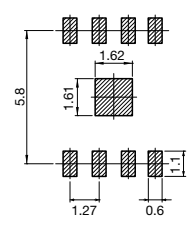


# Package Line-up

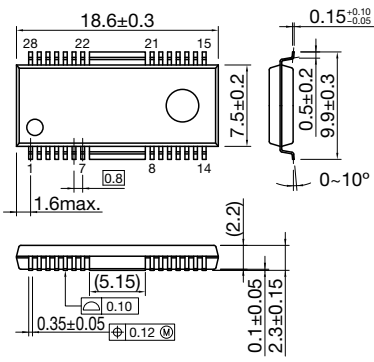
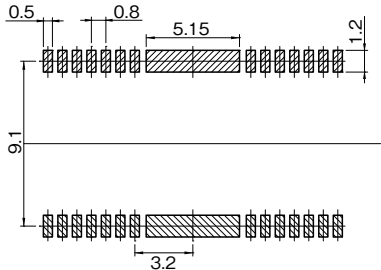
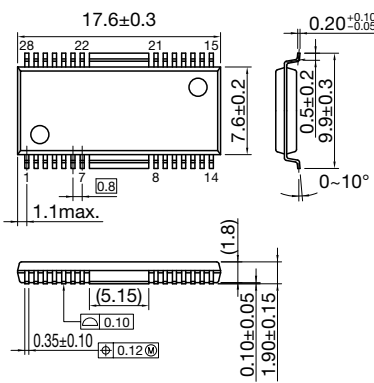
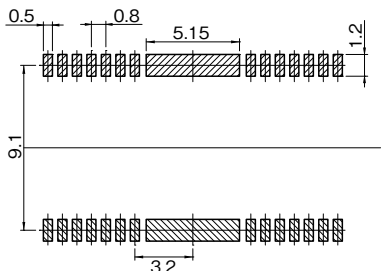


| Package Type      | Pin Count     | Package Name | Package Size (mm) |       |       | Pin Pitch (mm) |      |
|-------------------|---------------|--------------|-------------------|-------|-------|----------------|------|
|                   |               |              | He                | D     | A     | C              |      |
| Lead-through Type | 3             | TO-92A       | 5.40              | 3.80  | 7.50  | 2.50           |      |
| Flat Lead Type    | 6             | SON-6A       | 3.00              | 1.60  | 0.80  | 0.50           |      |
|                   | 6             | SON-6B       | 3.00              | 1.60  | 0.80  | 0.50           |      |
|                   | 6             | SON-6C       | 2.00              | 1.60  | 0.55  | 0.50           |      |
|                   | 6             | SON-6D       | 3.00              | 2.90  | 0.80  | 0.95           |      |
|                   | 5             | SOT89-5A     | 4.25              | 4.50  | 1.50  | 1.50           |      |
| Gullwing Type     | 4             | SC-82ABA     | 2.10              | 2.00  | 0.95  | 1.30           |      |
|                   | 4             | SC-82ABB     | 2.10              | 2.00  | 0.90  | 1.30           |      |
|                   | 6             | SC-88A       | 2.10              | 2.00  | 0.90  | 0.65           |      |
|                   | 3             | SOT-23A      | 2.80              | 2.90  | 1.15  | 1.90           |      |
|                   | 5             | SOT-25A      | 2.80              | 2.90  | 1.15  | 0.95           |      |
|                   | 6             | SOT-26A      | 2.80              | 2.90  | 1.15  | 0.95           |      |
|                   | 6             | SOT-26B      | 2.80              | 2.90  | 1.15  | 0.95           |      |
|                   | 7             | SOP-7B       | 6.20              | 5.00  | 1.55  | 1.27           |      |
|                   | 8             | SOP-8C       | 6.20              | 5.20  | 1.55  | 1.27           |      |
|                   | 8             | SOP-8D       | 6.20              | 5.00  | 1.55  | 1.27           |      |
|                   | 10            | SOP-10A      | 6.20              | 5.00  | 1.55  | 1.00           |      |
|                   | 16            | SOP-16B      | 6.20              | 10.20 | 1.55  | 1.27           |      |
|                   | 28            | SOP-28B      | 9.90              | 17.60 | 1.85  | 1.27           |      |
|                   | 8             | SSOP-8A      | 3.10              | 2.00  | 0.75  | 0.50           |      |
|                   | 24            | SSOP-24B     | 7.80              | 10.20 | 1.90  | 0.80           |      |
|                   | 34            | SSOP-34A     | 9.90              | 17.60 | 1.85  | 1.00           |      |
|                   | 36            | SSOP-36A     | 7.80              | 15.00 | 1.90  | 0.80           |      |
|                   | 42            | SSOP-42A     | 9.90              | 17.60 | 1.85  | 0.80           |      |
|                   | 16            | TSOP-16A     | 6.40              | 5.00  | 1.10  | 0.65           |      |
|                   | 16            | TSOP-16B     | 6.40              | 5.00  | 1.10  | 0.65           |      |
|                   | 16            | TSOP-16D     | 6.40              | 5.00  | 1.10  | 0.65           |      |
|                   | 20            | TSOP-20A     | 6.40              | 6.50  | 1.10  | 0.65           |      |
|                   | 20            | TSOP-20B     | 6.40              | 6.50  | 1.10  | 0.65           |      |
|                   | 20            | TSOP-20D     | 6.40              | 6.50  | 1.10  | 0.65           |      |
|                   | 20            | TSOP-20E     | 6.40              | 6.50  | 1.10  | 0.65           |      |
|                   | 20            | TSOP-20F     | 6.40              | 6.50  | 1.20  | 0.65           |      |
|                   | 8             | VSOP-8B      | 4.00              | 2.90  | 1.30  | 0.65           |      |
|                   | 8             | VSOP-8C      | 4.00              | 2.95  | 1.30  | 0.65           |      |
|                   | 8             | VSOP-8D      | 4.00              | 2.80  | 1.30  | 0.65           |      |
|                   | 8             | HSOP-8A      | 6.20              | 5.00  | 1.55  | 1.27           |      |
|                   | 8             | HSOP-8C      | 6.20              | 5.00  | 1.55  | 1.27           |      |
|                   | 28            | HSOP-28A     | 9.90              | 18.60 | 2.30  | 0.80           |      |
|                   | 28            | HSOP-28C     | 9.90              | 17.60 | 1.90  | 0.80           |      |
|                   | 36            | HSOP-36A     | 9.90              | 17.60 | 1.90  | 0.80           |      |
|                   | 64            | QFP-64E      | 16.00             | 16.00 | 1.20  | 0.80           |      |
|                   | 80            | QFP-80D      | 17.20             | 23.20 | 3.22  | 0.80           |      |
|                   | 100           | QFP-100A     | 17.20             | 23.20 | 3.22  | 0.65           |      |
|                   | 3             | TO-252C      | 9.90              | 6.60  | 2.30  | 2.30           |      |
|                   | 5             | TO-252-5A    | 9.90              | 6.60  | 2.30  | 1.27           |      |
|                   | Non-Lead Type | 4            | PLP-4A            | 1.00  | 1.00  | 0.60           | 0.65 |
| 4                 |               | PLP-4B       | 1.60              | 1.20  | 0.60  | 0.60           |      |
| 6                 |               | PLP-6A       | 2.00              | 1.80  | 0.60  | 0.50           |      |
| 10                |               | PLP-10A      | 2.50              | 2.70  | 0.60  | 0.50           |      |
| 16                |               | SQFN-16A     | 3.00              | 3.00  | 0.75  | 0.50           |      |
| 32                |               | SQFN-32A     | 5.00              | 5.00  | 0.75  | 0.50           |      |
| 4                 |               | SSON-4B      | 1.40              | 1.10  | 0.55  | 0.50           |      |
| 6                 |               | SSON-6A      | 2.00              | 1.80  | 0.75  | 0.50           |      |
| 6                 |               | SSON-6E      | 1.60              | 1.80  | 0.55  | 0.50           |      |
| 6                 |               | SSON-6J      | 1.40              | 1.40  | 0.55  | 0.50           |      |
| 6                 |               | SSON-6L      | 2.00              | 2.00  | 0.75  | 0.65           |      |
| 8                 |               | SSON-8B      | 2.30              | 2.30  | 0.75  | 0.5            |      |
| 8                 |               | SSON-8C      | 3.00              | 3.00  | 0.55  | 0.65           |      |
| 10                |               | SSON-10A     | 2.50              | 2.70  | 0.60  | 0.50           |      |
| 20                |               | WLCSP-20A    | 1.936             | 1.936 | 0.345 | 0.40           |      |
| 25                |               | WLCSP-25A    | 1.936             | 1.936 | 0.345 | 0.40           |      |
| 48                |               | WLCSP-48A    | 3.47              | 3.47  | 0.40  | 0.50           |      |

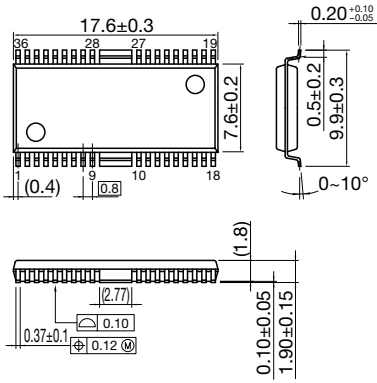
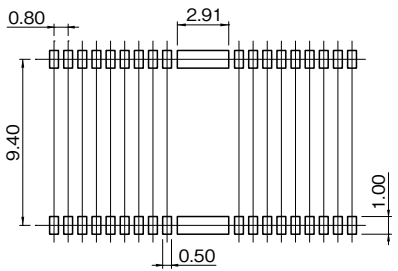
# Package

| Package Name          | Dimensional Drawing  | Recommended Land Pattern   |
|-----------------------|--|--|
| <p><b>HSOP-8A</b></p> |  <p>Top View: <math>5.0 \pm 0.3</math>, <math>4.4 \pm 0.2</math>, <math>0.895 \text{max.}</math>, <math>1.27</math>, <math>0.4</math>, <math>0.15 \pm 0.10 / -0.05</math>, <math>0.4 \pm 0.2</math>, <math>6.2 \pm 0.3</math>, <math>0 \sim 10^\circ</math></p> <p>Side View: <math>0.15 \pm 0.10 / -0.05</math>, <math>0.4 \pm 0.2</math>, <math>6.2 \pm 0.3</math>, <math>0 \sim 10^\circ</math></p> <p>Bottom View: <math>0.4 \pm 0.1</math>, <math>\phi 0.12</math>, <math>0.05 \pm 0.05</math>, <math>1.55 \pm 0.15</math>, <math>0.10</math>, <math>1.5</math>, <math>2.9</math>, <math>2.7</math></p>   |  <p>Land Pattern: <math>5.8</math>, <math>2.9</math>, <math>3.1</math>, <math>1.27</math>, <math>0.6</math>, <math>1.1</math></p>     |
| <p><b>HSOP-8C</b></p> |  <p>Top View: <math>5.0 \pm 0.3</math>, <math>4.4 \pm 0.2</math>, <math>0.895 \text{MAX}</math>, <math>1.27</math>, <math>0.4</math>, <math>0.15 \pm 0.10 / -0.05</math>, <math>0.4 \pm 0.2</math>, <math>6.2 \pm 0.3</math>, <math>0 \sim 10^\circ</math></p> <p>Side View: <math>0.15 \pm 0.10 / -0.05</math>, <math>0.4 \pm 0.2</math>, <math>6.2 \pm 0.3</math>, <math>0 \sim 10^\circ</math></p> <p>Bottom View: <math>0.4 \pm 0.1</math>, <math>\phi 0.12</math>, <math>0.05 \pm 0.05</math>, <math>1.55 \pm 0.15</math>, <math>0.10</math>, <math>1.5</math>, <math>1.62</math>, <math>1.61</math></p> |  <p>Land Pattern: <math>5.8</math>, <math>1.62</math>, <math>1.61</math>, <math>1.27</math>, <math>0.6</math>, <math>1.1</math></p> |

# Package

| Package Name    | Dimensional Drawing   | Recommended Land Pattern  |
|-----------------|---|---|
| <p>HSOP-28A</p> |  <p>Dimensional drawing of HSOP-28A package showing top, side, and detail views. Key dimensions include: total width <math>18.6 \pm 0.3</math>, body width <math>7.5 \pm 0.2</math>, lead height <math>0.15^{+0.10}_{-0.05}</math>, lead thickness <math>0.5 \pm 0.2</math>, lead length <math>9.9 \pm 0.3</math>, lead angle <math>0 \sim 10^\circ</math>, lead pitch <math>1.6 \text{ max.}</math>, lead width <math>0.8</math>, lead diameter <math>0.12</math>, and lead thickness <math>0.1 \pm 0.05</math>.</p>    |  <p>Recommended land pattern for HSOP-28A showing lead spacing of <math>0.5</math>, lead width of <math>0.8</math>, and a central pad width of <math>5.15</math>. The total width of the land pattern is <math>9.1</math> and the pad thickness is <math>1.2</math>.</p>   |
| <p>HSOP-28C</p> |  <p>Dimensional drawing of HSOP-28C package showing top, side, and detail views. Key dimensions include: total width <math>17.6 \pm 0.3</math>, body width <math>7.6 \pm 0.2</math>, lead height <math>0.20^{+0.10}_{-0.05}</math>, lead thickness <math>0.5 \pm 0.2</math>, lead length <math>9.9 \pm 0.3</math>, lead angle <math>0 \sim 10^\circ</math>, lead pitch <math>1.1 \text{ max.}</math>, lead width <math>0.8</math>, lead diameter <math>0.12</math>, and lead thickness <math>0.10 \pm 0.05</math>.</p> |  <p>Recommended land pattern for HSOP-28C showing lead spacing of <math>0.5</math>, lead width of <math>0.8</math>, and a central pad width of <math>5.15</math>. The total width of the land pattern is <math>9.1</math> and the pad thickness is <math>1.2</math>.</p> |

# Package

| Package Name           | Dimensional Drawing   | Recommended Land Pattern  |
|------------------------|---|---|
| <p><b>HSOP-36A</b></p> |  <p>Top view dimensions: 17.6±0.3, 7.6±0.2, 0.4, 0.8, 1, 9, 10, 18, 27, 28, 36.</p> <p>Side view dimensions: 0.20<sup>+0.10</sup>/<sub>-0.05</sub>, 0.5±0.2, 9.9±0.3, 0-10°.</p> <p>Detail view dimensions: 1.8, 0.10±0.05, 1.90±0.15, 0.37±0.1, 0.10, 0.12, 2.77.</p> |  <p>Land pattern dimensions: 0.80, 2.91, 9.40, 1.00, 0.50.</p> |

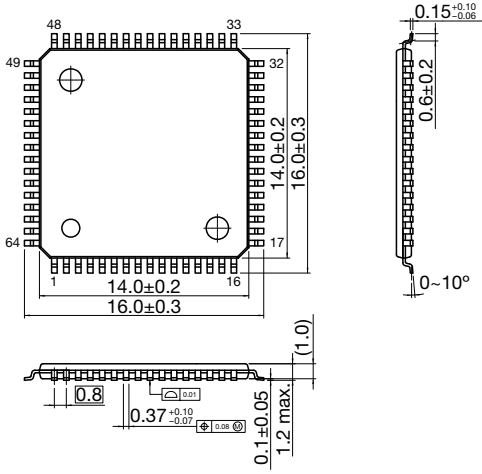
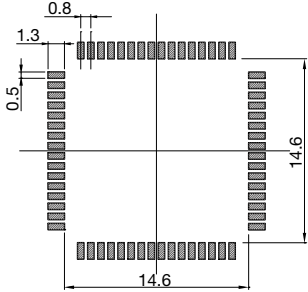
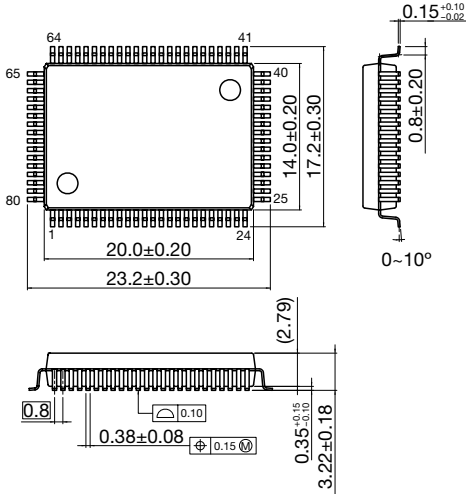
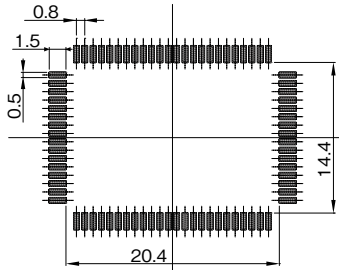
# Package

| Package Name  | Dimensional Drawing  | Recommended Land Pattern  |
|---------------|--|---|
| <p>PLP-4A</p> | <p>Top View: 1.00±0.05 (width), 1.00±0.05 (height), pins 1, 2, 3, 4.</p> <p>Side View: 0.07MAX (height), 0.60MAX (length), 0.05 (thickness).</p> <p>Bottom View: 0.25±0.05 (width), 0.65 (width), 0.48±0.05 (width), 45° (angle), 0.32±0.05 (width), 0.07±0.05 (width), 0.25±0.05 (width), 0.05 (hole diameter).</p> | <p>Land Pattern Dimensions: 0.44, 0.25, 0.18, 0.25, 0.32, 0.25, 0.65, 0.55, 0.57, 1.46.</p> |
| <p>PLP-4B</p> | <p>Top View: 1.20±0.05 (width), 1.60±0.05 (height), pins 1, 2, 3, 4.</p> <p>Side View: 0.05 (height), 0.6MAX (length), 0.05 (thickness).</p> <p>Bottom View: 0.60 (width), 0.7 (width), 0.20±0.05 (width), 0.30±0.05 (width), 0.05 (hole diameter).</p>  | <p>Land Pattern Dimensions: 0.45, 0.60, 0.70, 1.00, 2.10, 0.30.</p>                         |

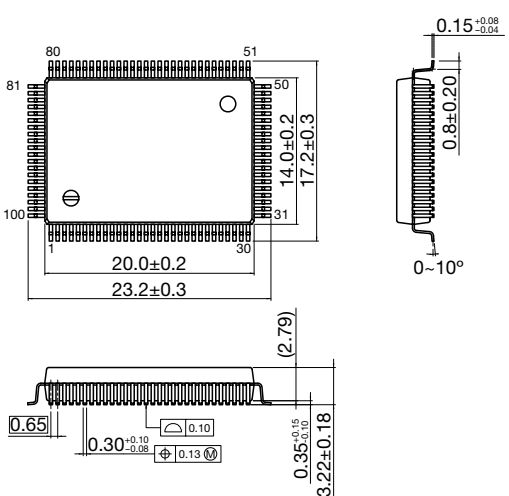
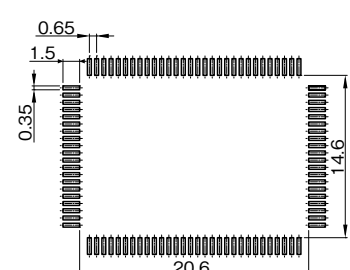
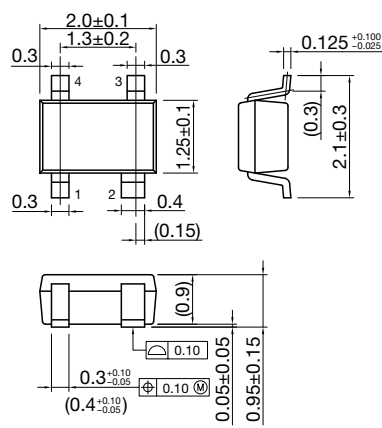
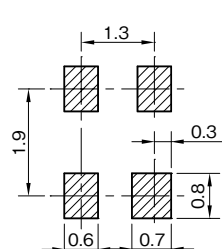
# Package

| Package Name   | Dimensional Drawing  | Recommended Land Pattern   |
|----------------|--|--|
| <p>PLP-6A</p>  | <p>Dimensional drawing of PLP-6A package showing top, side, and bottom views. Key dimensions include: 1.80±0.05, 2.00±0.05, 0.6max., 0.30±0.05, (0.1), (1.6), (1.0), 0.25±0.05, 0.20±0.05, 0.05, 0.05, 0.05.</p>             | <p>Recommended land pattern for PLP-6A showing dimensions: 0.50, 1.60, 1.00, 1.95, 2.40, 0.45, 0.35, 0.25.</p> |
| <p>PLP-10A</p> | <p>Dimensional drawing of PLP-10A package showing top, side, and bottom views. Key dimensions include: 2.70±0.05, 2.50±0.05, 0.6max., 0.30±0.05, 0.10±0.05, 0.25±0.05, (2.30), 1.50, 0.20±0.05, 0.05, 0.05, 0.05, Ø0.50.</p> | <p>Recommended land pattern for PLP-10A showing dimensions: 0.50, 2.30, 1.50, 2.40, 2.90, 0.35, 0.25.</p>      |

# Package

| Package Name          | Dimensional Drawing  | Recommended Land Pattern   |
|-----------------------|--|--|
| <p><b>QFP-64E</b></p> |  <p>Top view dimensions: 14.0±0.2, 16.0±0.3, 14.0±0.2, 16.0±0.3. Pin 1 location: 0.8. Pin height: 0.1±0.05. Lead thickness: 0.37<sup>+0.10</sup>/<sub>-0.07</sub>. Lead width: 1.2 max. Pin pitch: 0.25. Pin diameter: 0.15<sup>+0.10</sup>/<sub>-0.06</sub>. Lead angle: 0~10°.</p> |  <p>Land pattern dimensions: 14.6, 14.6, 0.8, 1.3, 0.5.</p>   |
| <p><b>QFP-80D</b></p> |  <p>Top view dimensions: 20.0±0.20, 23.2±0.30, 14.0±0.20, 17.2±0.30. Pin 1 location: 0.8. Pin height: 0.1±0.05. Lead thickness: 0.38±0.08. Lead width: 3.22±0.18. Pin pitch: 0.25. Pin diameter: 0.15. Pin height: 0.35<sup>+0.15</sup>/<sub>-0.10</sub>. Lead angle: 0~10°.</p>    |  <p>Land pattern dimensions: 20.4, 14.4, 0.8, 1.5, 0.5.</p> |

# Package

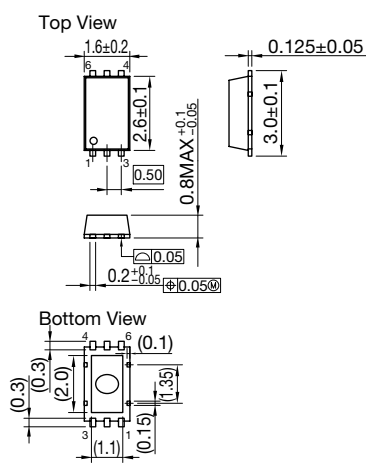
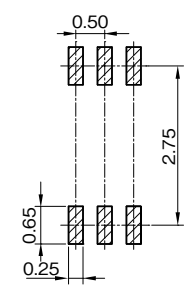
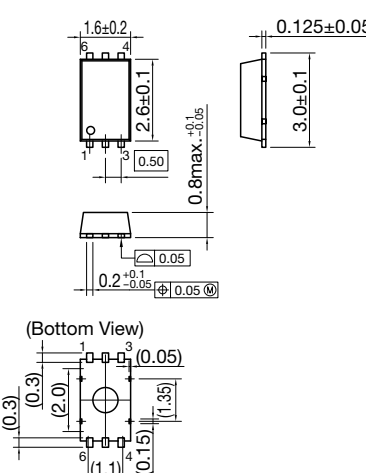
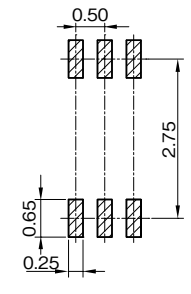
| Package Name           | Dimensional Drawing  | Recommended Land Pattern   |
|------------------------|--|--|
| <p><b>QFP-100A</b></p> |  <p>Top view dimensions: 20.0±0.2, 23.2±0.3, 14.0±0.2, 17.2±0.3, 0.65, 0.30±0.10, 0.10, 0.13, 0.35±0.15, 3.22±0.18, 0.65, 0.10, 0.13, 0.35±0.15, 3.22±0.18, (2.79), 0.65, 0.30±0.10, 0.10, 0.13, 0.35±0.15, 3.22±0.18, (2.79)</p> <p>Side view dimensions: 0.15±0.08, 0.8±0.20, 0-10°</p> |  <p>Land pattern dimensions: 0.65, 1.5, 0.35, 20.6, 14.6</p>    |
| <p><b>SC-82ABA</b></p> |  <p>Top view dimensions: 2.0±0.1, 1.3±0.2, 0.3, 0.3, 1.25±0.1, 0.3, 0.4, (0.15), 0.3, 0.3, 0.4, (0.15)</p> <p>Side view dimensions: 0.125±0.100, 2.1±0.3, (0.3)</p> <p>Detail view dimensions: 0.3±0.10, (0.4±0.10), 0.10, 0.10, 0.05±0.05, 0.95±0.15, (0.9)</p>                          |  <p>Land pattern dimensions: 1.3, 1.9, 0.3, 0.8, 0.6, 0.7</p> |



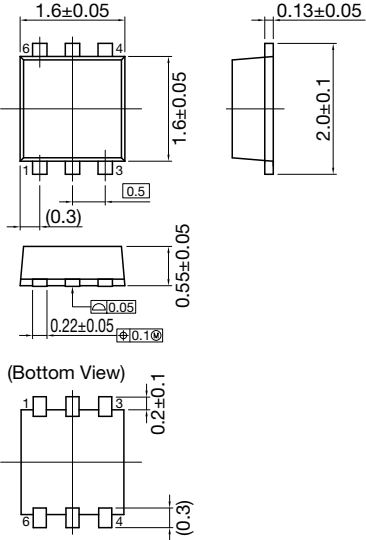
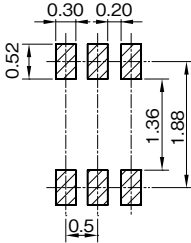
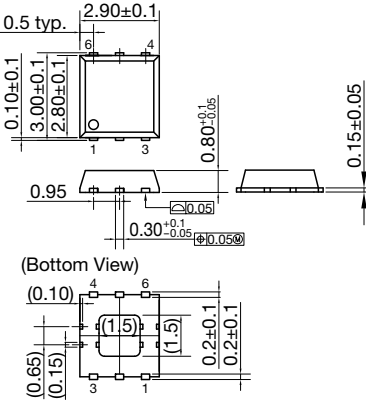
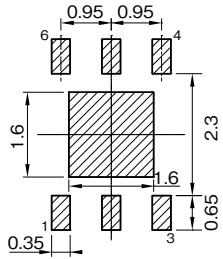
# Package

| Package Name           | Dimensional Drawing | Recommended Land Pattern |
|------------------------|---------------------|--------------------------|
| <p><b>SC-82ABB</b></p> |                     |                          |
| <p><b>SC-88A</b></p>   |                     |                          |

# Package

| Package Name                                     | Dimensional Drawing  | Recommended Land Pattern  |
|--|--|---|
| <p style="text-align: center;"><b>SON-6A</b></p> |  <p>Top View</p> <p>Bottom View</p>    |    |
| <p style="text-align: center;"><b>SON-6B</b></p> |  <p>Top View</p> <p>(Bottom View)</p> |  |

# Package

| Package Name                                     | Dimensional Drawing  | Recommended Land Pattern   |
|--|--|--|
| <p style="text-align: center;"><b>SON-6C</b></p> |  <p>Top View: <math>1.6 \pm 0.05</math> (width), <math>1.6 \pm 0.05</math> (height), <math>0.5</math> (pitch), <math>(0.3)</math> (lead width), <math>0.13 \pm 0.05</math> (lead height), <math>2.0 \pm 0.1</math> (total height).</p> <p>Side View: <math>0.55 \pm 0.05</math> (height), <math>0.22 \pm 0.05</math> (lead length), <math>\phi 0.10</math> (lead diameter).</p> <p>Bottom View: <math>0.2 \pm 0.1</math> (lead width), <math>(0.3)</math> (pitch).</p>   |  <p>Land Pattern: <math>0.30</math> (pad width), <math>0.20</math> (pad length), <math>0.52</math> (pitch), <math>1.36</math> (total width), <math>1.88</math> (total length), <math>0.5</math> (pitch).</p>                            |
| <p style="text-align: center;"><b>SON-6D</b></p> |  <p>Top View: <math>0.5</math> typ. (lead length), <math>2.90 \pm 0.1</math> (width), <math>0.10 \pm 0.1</math> (lead width), <math>3.00 \pm 0.1</math> (pitch), <math>2.80 \pm 0.1</math> (pitch), <math>0.80</math> (lead length), <math>0.15 \pm 0.05</math> (lead height).</p> <p>Side View: <math>0.95</math> (height), <math>0.30</math> (lead length), <math>\phi 0.05</math> (lead diameter).</p> <p>Bottom View: <math>(0.10)</math> (lead width), <math>(1.5)</math> (pitch), <math>(0.65)</math> (pitch), <math>(0.15)</math> (pitch), <math>0.2 \pm 0.1</math> (lead width), <math>0.2 \pm 0.1</math> (lead width).</p> |  <p>Land Pattern: <math>0.95</math> (pad width), <math>0.95</math> (pad length), <math>1.6</math> (total width), <math>2.3</math> (total length), <math>0.65</math> (pitch), <math>0.35</math> (pitch), <math>1.6</math> (pitch).</p> |

# Package

| Package Name  | Dimensional Drawing | Recommended Land Pattern |
|---------------|---------------------|--------------------------|
| <p>SOP-7B</p> |                     |                          |
| <p>SOP-8C</p> |                     |                          |

# Package

| Package Name   | Dimensional Drawing | Recommended Land Pattern |
|----------------|---------------------|--------------------------|
| <p>SOP-8D</p>  |                     |                          |
| <p>SOP-10A</p> |                     |                          |

# Package

| Package Name   | Dimensional Drawing | Recommended Land Pattern |
|----------------|---------------------|--------------------------|
| <p>SOP-16B</p> |                     |                          |
| <p>SOP-28B</p> |                     |                          |

for package

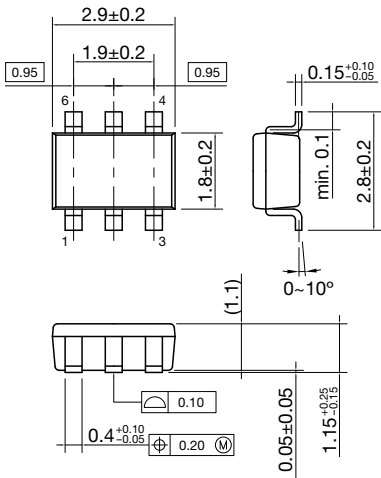
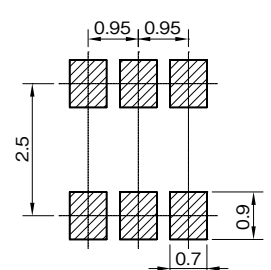
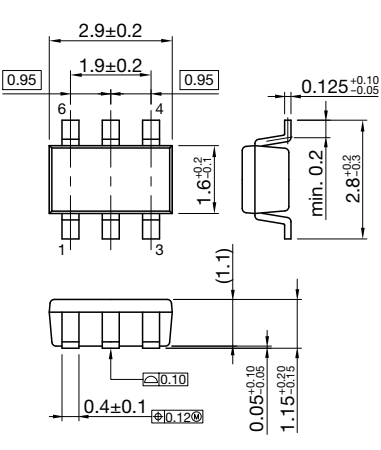
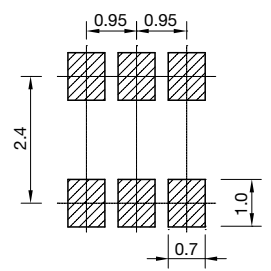
**Package**

# Package

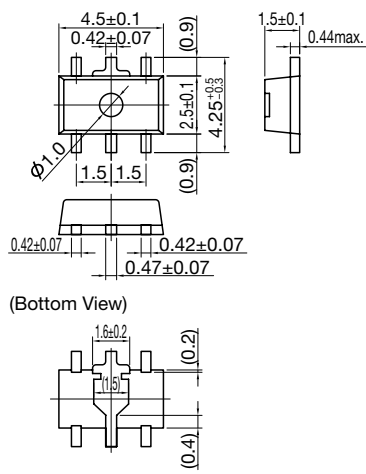
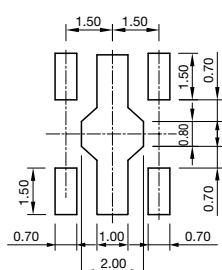
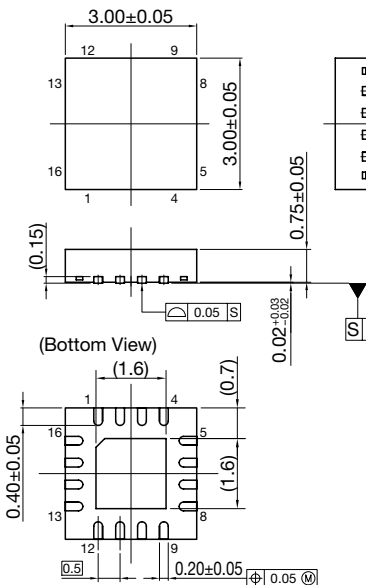
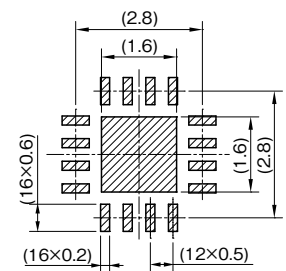
| Package Name   | Dimensional Drawing  | Recommended Land Pattern   |
|----------------|--|--|
| <p>SOT-23A</p> | <p>Dimensional drawing of SOT-23A package showing top, side, and detail views. Dimensions include: 2.9±0.2, 1.9, 0.95, 1.6±0.2, 0.15±0.10, min. 0.2, 2.8±0.2, (1.1), 0.4±0.10, 0.05±0.10, 1.15±0.25.</p>     | <p>Recommended land pattern for SOT-23A showing pad dimensions: 0.7, 1.0, 2.4, 0.95, 0.95.</p> |
| <p>SOT-25A</p> | <p>Dimensional drawing of SOT-25A package showing top, side, and detail views. Dimensions include: 2.9±0.2, 1.9±0.2, 0.95, 1.6±0.2, 0.15±0.10, min. 0.2, 2.8±0.2, (1.1), 0.4±0.10, 0.05±0.05, 1.15±0.25.</p> | <p>Recommended land pattern for SOT-25A showing pad dimensions: 0.7, 1.0, 2.4, 0.95, 0.95.</p> |



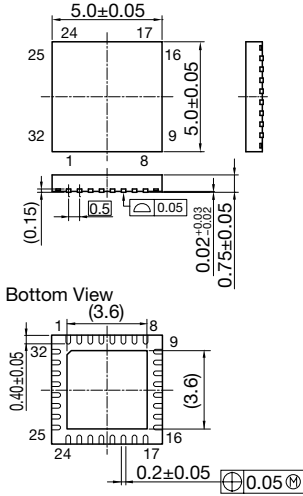
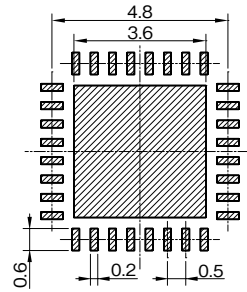
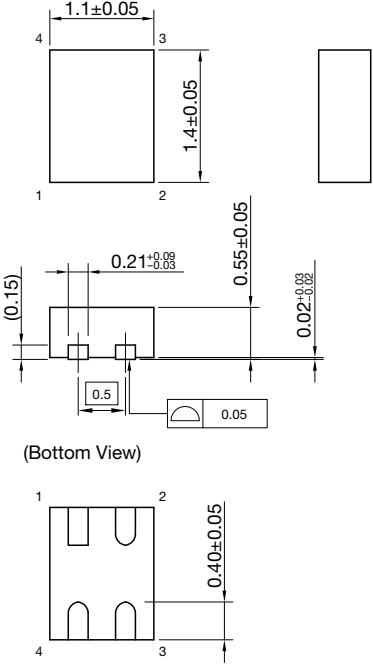
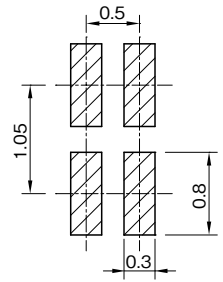
# Package

| Package Name   | Dimensional Drawing  | Recommended Land Pattern   |
|----------------|--|--|
| <p>SOT-26A</p> |  <p>Top view dimensions: 2.9±0.2, 1.9±0.2, 0.95, 0.95, 1.8±0.2, 0.15<sup>+0.10</sup>/<sub>-0.05</sub>, 0.4<sup>+0.10</sup>/<sub>-0.05</sub>, 0.20, 0.05±0.05, 1.15<sup>+0.25</sup>/<sub>-0.15</sub>, 0.10, (1.1), 0~10°.</p> <p>Side view dimensions: min. 0.1, 2.8±0.2.</p> |  <p>Land pattern dimensions: 0.95, 0.95, 2.5, 0.9, 0.7.</p>   |
| <p>SOT-26B</p> |  <p>Top view dimensions: 2.9±0.2, 1.9±0.2, 0.95, 0.95, 1.6±0.2, 0.125<sup>+0.10</sup>/<sub>-0.05</sub>, 0.4±0.1, 0.10, 0.05±0.05, 1.15<sup>+0.20</sup>/<sub>-0.15</sub>, 0.12, (1.1).</p> <p>Side view dimensions: min. 0.2, 2.8<sup>+0.2</sup>/<sub>-0.3</sub>.</p>        |  <p>Land pattern dimensions: 0.95, 0.95, 2.4, 1.0, 0.7.</p> |

# Package

| Package Name           | Dimensional Drawing   | Recommended Land Pattern   |
|------------------------|---|--|
| <p><b>SOT89-5A</b></p> |  <p>Top View: <math>4.5 \pm 0.1</math>, <math>0.42 \pm 0.07</math> (0.9), <math>2.5 \pm 0.1</math>, <math>4.25^{+0.3}_{-0.3}</math>, <math>\phi 1.0</math>, <math>1.5</math>, <math>1.5</math> (0.9)</p> <p>Side View: <math>1.5 \pm 0.1</math>, <math>0.44 \text{max.}</math></p> <p>Bottom View: <math>0.42 \pm 0.07</math>, <math>0.42 \pm 0.07</math>, <math>0.47 \pm 0.07</math></p> <p>(Bottom View): <math>1.6 \pm 0.2</math> (0.2), <math>0.4</math></p>  |  <p>Land Pattern Dimensions: <math>1.50</math>, <math>1.50</math>, <math>1.50</math>, <math>0.70</math>, <math>0.80</math>, <math>0.70</math>, <math>1.00</math>, <math>2.00</math>, <math>0.70</math></p>  |
| <p><b>SQFN-16A</b></p> |  <p>Top View: <math>3.00 \pm 0.05</math>, <math>12</math>, <math>9</math>, <math>13</math>, <math>8</math>, <math>3.00 \pm 0.05</math>, <math>16</math>, <math>5</math>, <math>1</math>, <math>4</math></p> <p>Side View: <math>0.15</math>, <math>0.75 \pm 0.05</math>, <math>0.05</math> S, <math>0.02^{+0.02}_{-0.02}</math>, S</p> <p>(Bottom View): <math>0.40 \pm 0.05</math>, <math>16</math>, <math>13</math>, <math>12</math>, <math>9</math>, <math>8</math>, <math>5</math>, <math>4</math>, <math>1</math>, <math>1.6</math> (0.7), <math>1.6</math>, <math>0.20 \pm 0.05</math>, <math>\phi 0.05</math> (M)</p> |  <p>Land Pattern Dimensions: <math>(2.8)</math>, <math>(1.6)</math>, <math>(16 \times 0.6)</math>, <math>(16 \times 0.2)</math>, <math>(12 \times 0.5)</math>, <math>(1.6)</math>, <math>(2.8)</math></p> |

# Package

| Package Name    | Dimensional Drawing   | Recommended Land Pattern   |
|-----------------|---|--|
| <p>SQFN-32A</p> |  <p>Top View: 5.0±0.05, 24, 17, 25, 16, 32, 9, 5.0±0.05, 1, 8</p> <p>Side View: (0.15), 0.5, 0.05, 0.02±0.03, 0.75±0.05</p> <p>Bottom View: (3.6), 1, 8, 9, 0.40±0.05, 32, 25, 24, 17, 16, 0.2±0.05, 0.05</p> |  <p>4.8, 3.6, 0.6, 0.2, 0.5</p> |
| <p>SSON-4B</p>  |  <p>Top View: 1.1±0.05, 4, 3, 1, 2, 1.4±0.05</p> <p>Side View: (0.15), 0.21±0.03, 0.55±0.05, 0.02±0.03, 0.5, 0.05</p> <p>(Bottom View): 1, 2, 4, 3, 0.40±0.05</p>  |  <p>0.5, 1.05, 0.8, 0.3</p>   |

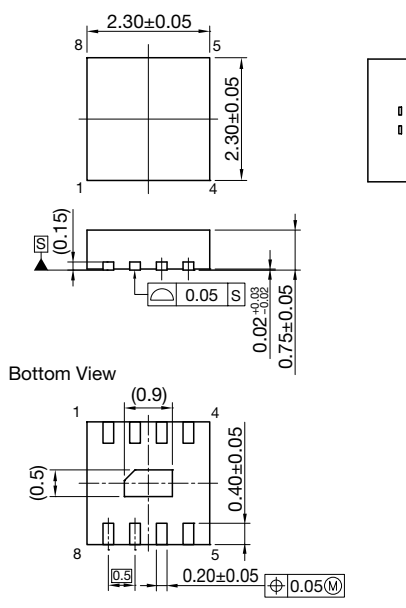
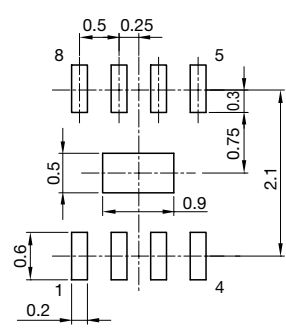
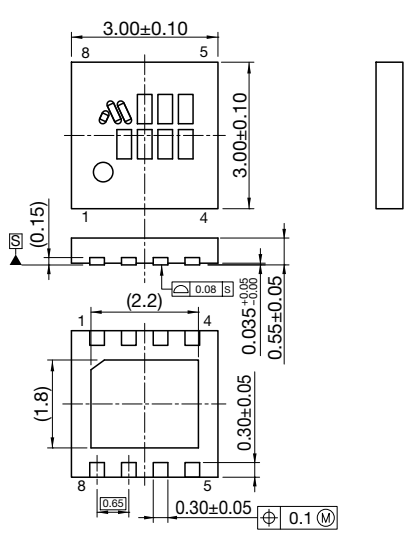
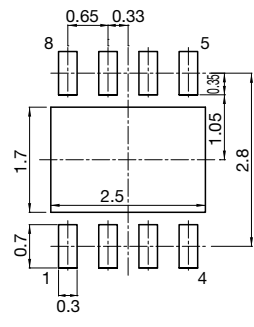
# Package

| Package Name   | Dimensional Drawing | Recommended Land Pattern |
|----------------|---------------------|--------------------------|
| <p>SSON-6A</p> |                     |                          |
| <p>SSON-6E</p> |                     |                          |

# Package

| Package Name   | Dimensional Drawing  | Recommended Land Pattern  |
|----------------|--|---|
| <p>SSON-6J</p> | <p>Top View: 1.4±0.05, 1, 3, 4, 6</p> <p>Side View: 0.55±0.05, 0.02±0.002</p> <p>Bottom View: 0.20±0.05, 0.05, 0.35±0.05, 0.8, 0.15, 1, 3, 6, 4</p> <p>Detail View: 0.05</p> | <p>Pin Pitch: 0.8</p> <p>Pin Width: 0.5</p> <p>Pin Spacing: 0.2</p> <p>Land Width: 0.625</p> <p>Lead Height: 0.15</p> |
| <p>SSON-6L</p> | <p>Top View: 2.0±0.05, 1, 3, 4, 6</p> <p>Side View: 0.75±0.05, 0.02±0.002</p> <p>Bottom View: 0.3±0.05, 0.05, 0.25±0.05, 1.8, 1.0, 1, 3, 6, 4</p> <p>Detail View: 0.05</p>   | <p>Pin Pitch: 1.6</p> <p>Pin Width: 0.65</p> <p>Pin Spacing: 0.30</p> <p>Land Width: 1.0</p> <p>Lead Height: 0.45</p> |

# Package

| Package Name          | Dimensional Drawing  | Recommended Land Pattern   |
|-----------------------|--|--|
| <p><b>SSON-8B</b></p> |  <p>Top View: Overall width 2.30±0.05, pin pitch 0.5, pin width 0.25, pin position 0.125. Pin numbers 1, 4, 5, 8 are indicated.</p> <p>Side View: Total height 0.75±0.05, lead height 0.02±0.002, lead thickness 0.05, lead angle 0.15°. Pin numbers 1, 4, 5, 8 are indicated.</p> <p>Bottom View: Pin pitch 0.20±0.05, pin width 0.5, pin position 0.05, pin length 0.40±0.05. Pin numbers 1, 4, 5, 8 are indicated.</p>    |  <p>Land Pattern Dimensions: Pin pitch 0.5, pin width 0.25, pin position 0.125. Pad width 0.6, pad length 0.9, pad spacing 0.2. Pin numbers 1, 4, 5, 8 are indicated.</p>     |
| <p><b>SSON-8C</b></p> |  <p>Top View: Overall width 3.00±0.10, pin pitch 0.65, pin width 0.33, pin position 0.165. Pin numbers 1, 4, 5, 8 are indicated.</p> <p>Side View: Total height 0.55±0.05, lead height 0.035±0.005, lead thickness 0.08, lead angle 0.15°. Pin numbers 1, 4, 5, 8 are indicated.</p> <p>Bottom View: Pin pitch 0.30±0.05, pin width 0.65, pin position 0.1, pin length 0.30±0.05. Pin numbers 1, 4, 5, 8 are indicated.</p> |  <p>Land Pattern Dimensions: Pin pitch 0.65, pin width 0.33, pin position 0.165. Pad width 0.7, pad length 1.05, pad spacing 0.3. Pin numbers 1, 4, 5, 8 are indicated.</p> |

# Package

| Package Name           | Dimensional Drawing   | Recommended Land Pattern   |
|------------------------|---|--|
| <p><b>SSON-10A</b></p> | <p>Top View: Overall width 2.7, pin pitch 0.5, pin width 0.15, pin length 0.55. Pin positions 1, 5, 6, 10 are marked.</p> <p>Bottom View: Pin pitch 0.5, pin width 0.2, pin length 0.25. Pin positions 1, 5, 6, 10 are marked. A central area of 2.3 is indicated.</p> <p>Side View: Pin height 0.05, pin thickness 0.02. A chamfered edge is shown with a 0.05 chamfer and a 0.02±0.02 dimension.</p>            | <p>Land Pattern: Pin pitch 0.5, pad width 0.10, pad length 0.30. Pad length from centerline is 0.20. Pad width from centerline is 0.45. Total pad width is 2.30. Pad length from centerline is 1.50. Total pad length is 2.90.</p> |
| <p><b>SSOP-8A</b></p>  | <p>Top View: Overall width 2.0±0.3, pin pitch 0.5, pin length 0.5. Pin positions 1, 4, 5, 8 are marked.</p> <p>Bottom View: Pin pitch 0.5, pin width 0.2±0.05, pin length 0.75±0.15. Pin positions 1, 4, 5, 8 are marked. A central area of 0.7 is indicated.</p> <p>Side View: Pin height 0.13, pin thickness 0.05±0.01, pin length 3.1±0.3. Lead angle is 0-10°. A minimum lead length of 0.1 is specified.</p> | <p>Land Pattern: Pin pitch 0.5, pad width 0.25, pad length 0.55. Pad length from centerline is 0.55. Pad width from centerline is 0.25. Total pad width is 3.05.</p>   |

# Package

| Package Name           | Dimensional Drawing | Recommended Land Pattern |
|------------------------|---------------------|--------------------------|
| <p><b>SSOP-24B</b></p> |                     |                          |
| <p><b>SSOP-34A</b></p> |                     |                          |



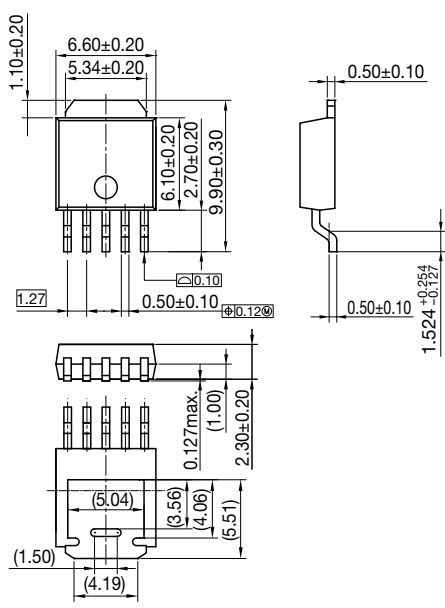
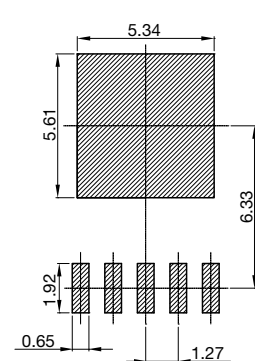
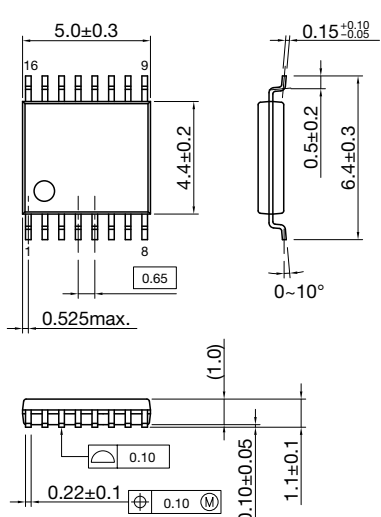
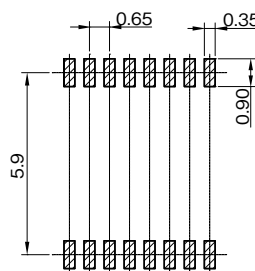
# Package

| Package Name    | Dimensional Drawing | Recommended Land Pattern |
|-----------------|---------------------|--------------------------|
| <p>SSOP-36A</p> |                     |                          |
| <p>SSOP-42A</p> |                     |                          |

# Package

| Package Name   | Dimensional Drawing  | Recommended Land Pattern   |
|----------------|--|--|
| <p>TO-92A</p>  | <p>Dimensional drawing of TO-92A package showing top, side, and lead views. Key dimensions include: R2.5 (top radius), 5.0±0.2 (top width), 7.5±0.3 (total height), 5.0±0.3 (body height), 12.7min. (lead length), 1.3 (lead thickness), 3.8±0.2 (lead width), 0.4±0.1 (lead spacing), 0.38<sup>+0.10</sup>/<sub>-0.05</sub> (lead thickness), and 2.5 (lead width).</p>   |  |
| <p>TO-252C</p> | <p>Dimensional drawing of TO-252C package showing top, side, and bottom views. Key dimensions include: 6.60±0.20 (top width), 5.34±0.20 (top width), 2.30±0.20 (lead width), 0.50±0.10 (lead width), 6.10±0.20 (total height), 0.76±0.05 (lead spacing), 0.50±0.10 (lead spacing), 1.524<sup>+0.254</sup>/<sub>-0.127</sub> (lead length), 0.127max. (lead thickness), 2.3 (lead width), 0.90±0.30 (lead length), 5.04 (bottom width), and 5.51 (bottom height).</p> | <p>Recommended Land Pattern for TO-252C showing a 6.00x6.50 square pad and two 3.00x1.40 rectangular pads with 2.30 spacing.</p> |

# Package

| Package Name            | Dimensional Drawing   | Recommended Land Pattern  |
|-------------------------|---|---|
| <p><b>TO-252-5A</b></p> |  <p>Top view dimensions: 6.60±0.20, 5.34±0.20, 6.10±0.20, 2.70±0.20, 9.90±0.30, 1.10±0.20, 1.27, 0.50±0.10, 0.10, 0.12, 0.50±0.10, 1.524<sup>+0.254</sup>/<sub>-0.127</sub>.</p> <p>Side view dimensions: 0.50±0.10, 1.524<sup>+0.254</sup>/<sub>-0.127</sub>.</p> <p>Detail view dimensions: 0.127max., (1.00), 2.30±0.20, (6.04), (3.56), (4.06), (5.51), (1.50), (4.19).</p> |  <p>Land pattern dimensions: 5.34, 5.61, 6.33, 1.92, 0.65, 1.27.</p> |
| <p><b>TSOP-16A</b></p>  |  <p>Top view dimensions: 5.0±0.3, 4.4±0.2, 0.65, 0.525max., 16, 9.</p> <p>Side view dimensions: 0.15<sup>+0.10</sup>/<sub>-0.05</sub>, 0.5±0.2, 6.4±0.3, 0~10°.</p> <p>Detail view dimensions: (1.0), 0.10, 0.22±0.1, 0.10, 0.10±0.05, 1.1±0.1.</p>  |  <p>Land pattern dimensions: 0.65, 0.35, 5.9, 0.90.</p>            |

# Package

| Package Name           | Dimensional Drawing | Recommended Land Pattern |
|------------------------|---------------------|--------------------------|
| <p><b>TSOP-16B</b></p> |                     |                          |
| <p><b>TSOP-16D</b></p> |                     |                          |

# Package

| Package Name           | Dimensional Drawing | Recommended Land Pattern |
|------------------------|---------------------|--------------------------|
| <p><b>TSOP-20A</b></p> |                     |                          |
| <p><b>TSOP-20B</b></p> |                     |                          |

# Package

| Package Name           | Dimensional Drawing | Recommended Land Pattern |
|------------------------|---------------------|--------------------------|
| <p><b>TSOP-20D</b></p> |                     |                          |
| <p><b>TSOP-20E</b></p> |                     |                          |

# Package

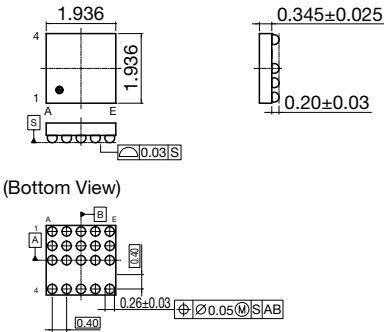
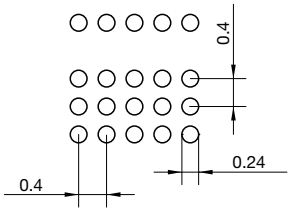
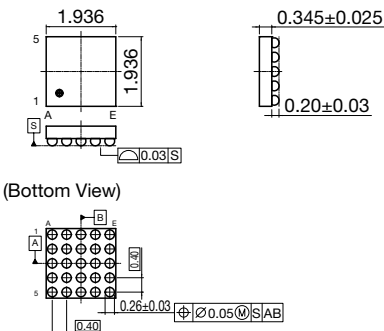
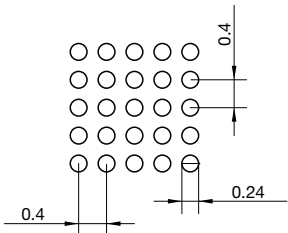
| Package Name           | Dimensional Drawing  | Recommended Land Pattern  |
|------------------------|--|---|
| <p><b>TSOP-20F</b></p> | <p>Top View: 6.5±0.3, 4.4±0.2, 0.65, 11, 20, 10</p> <p>Side View: 0.127±0.008, 0.6±0.1, 6.4±0.3, 0-8°</p> <p>Bottom View: 0.24±0.05, 0.1±0.05, 1.20MAX, 1.0, 0.10, 0.10, 1, 10, 20, 11, 3.99, 2.80</p>     | <p>Dimensions: 7.72, 5.94, 3.00, 4.16, 1.78, 0.65, 0.40, 3.19</p> |
| <p><b>VSOP-8B</b></p>  | <p>Top View: 2.9±0.1, 2.8±0.2, 0.65, 8, 5, 4, 1</p> <p>Side View: 0.125<sup>+0.10</sup>/<sub>-0.05</sub>, 0.45±0.20, 4.0±0.3, 0-10°</p> <p>Bottom View: 0.2±0.1, 0.10±0.05, 1.1, 1.3max, 0.10, 0.12, 1</p> | <p>Dimensions: 0.65, 3.55, 0.95, 0.35</p>                         |

# Package

| Package Name   | Dimensional Drawing | Recommended Land Pattern |
|----------------|---------------------|--------------------------|
| <p>VSOP-8C</p> |                     |                          |
| <p>VSOP-8D</p> |                     |                          |



# Package

| Package Name            | Dimensional Drawing  | Recommended Land Pattern  |
|-------------------------|--|---|
| <p><b>WLCSP-20A</b></p> |  <p>(Bottom View)</p>   |    |
| <p><b>WLCSP-25A</b></p> |  <p>(Bottom View)</p> |  |

# Package

| Package Name            | Dimensional Drawing  | Recommended Land Pattern |
|-------------------------|--|--------------------------|
| <p><b>WLCSP-48A</b></p> | <p>3.47±0.03</p> <p>0.4±0.025</p> <p>0.24±0.03</p> <p>0.03</p> <p>0.50</p> <p>0.32±0.05</p> <p>0.05</p> <p>(Bottom View)</p> | <p>0.5</p> <p>0.25</p>   |