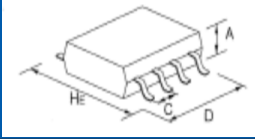
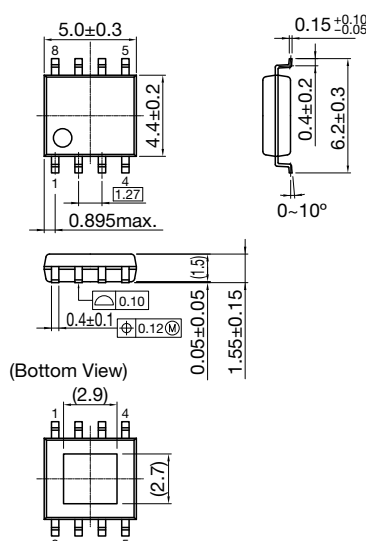
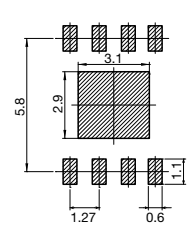
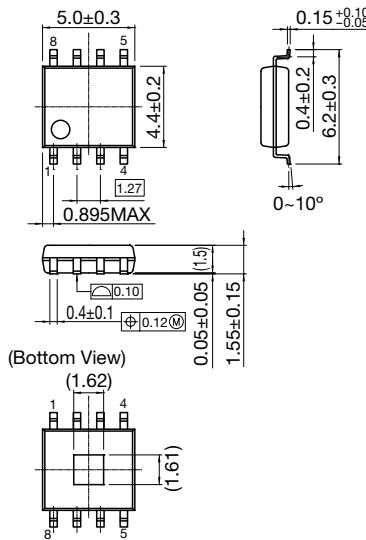
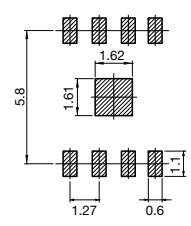


Package Line-up



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	

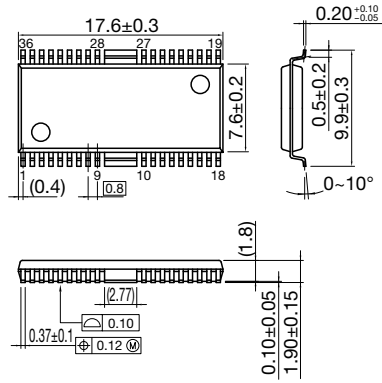
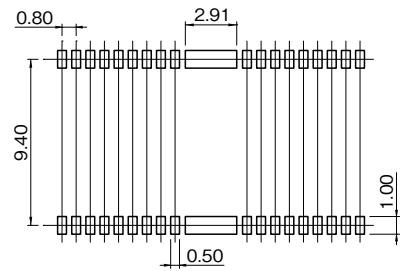
Package

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

Package

Package Name	Dimensional Drawing	Recommended Land Pattern
<p>HSOP-28A</p>		
<p>HSOP-28C</p>		

Package

Package Name	Dimensional Drawing	Recommended Land Pattern
<p>HSOP-36A</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^{+0.10}/_{-0.05}, 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>

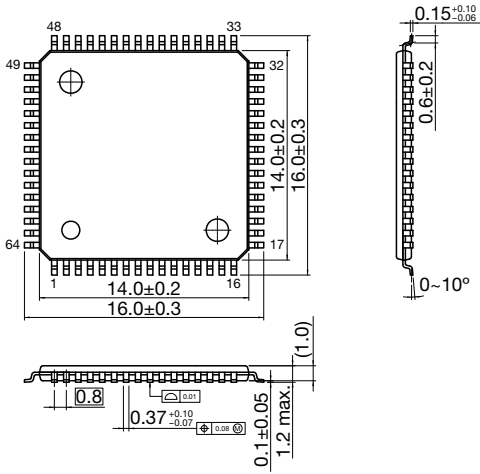
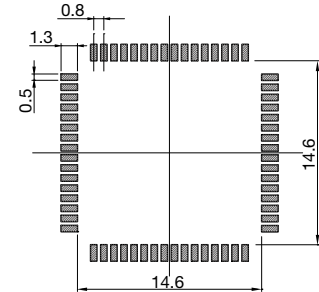
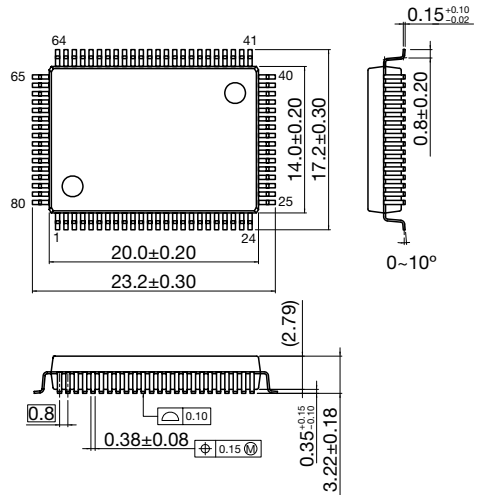
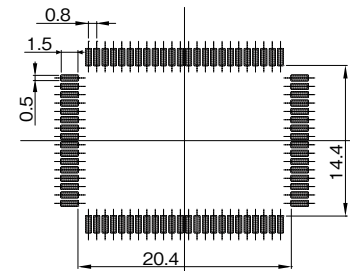
Package

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: 0.60MAX (height), 0.07MAX (thickness), 0.05 (lead height).</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: 0.6MAX (height), (0.07) (thickness), 0.05 (lead height).</p> <p>Bottom View: 0.60 (width), (1.0) (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>

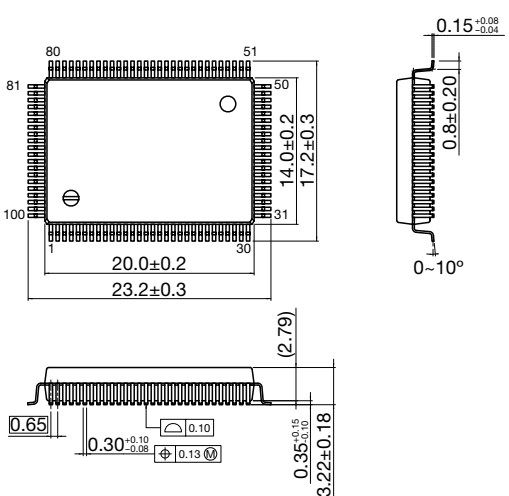
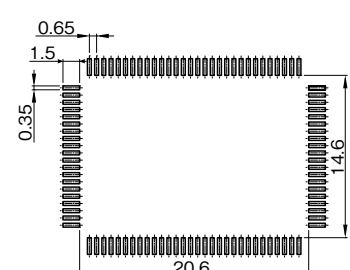
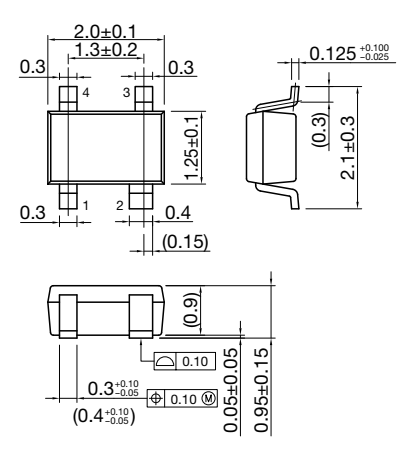
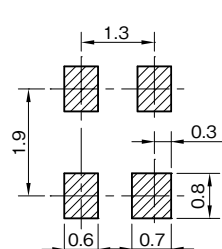
Package

Package Name	Dimensional Drawing	Recommended Land Pattern
<p>PLP-6A</p>		
<p>PLP-10A</p>		

Package

Package Name	Dimensional Drawing	Recommended Land Pattern
<p>QFP-64E</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. Lead height: 0.1±0.05. Lead thickness: 0.37^{+0.10}/_{-0.07}. Lead width: 1.2 max. Pin pitch: 0.15^{+0.10}/_{-0.06}. Lead angle: 0~10°.</p>	 <p>Land pattern dimensions: 14.6, 14.6, 0.8, 1.3, 0.5.</p>
<p>QFP-80D</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. Lead height: 0.15^{+0.10}/_{-0.02}. Lead thickness: 0.38±0.08. Lead width: 3.22±0.18. Lead angle: 0~10°.</p>	 <p>Land pattern dimensions: 20.4, 14.4, 0.8, 1.5, 0.5.</p>

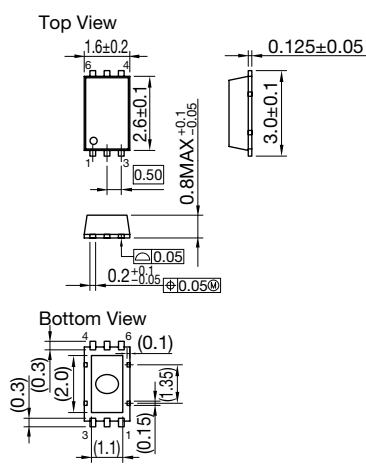
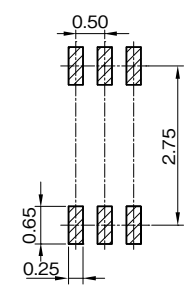
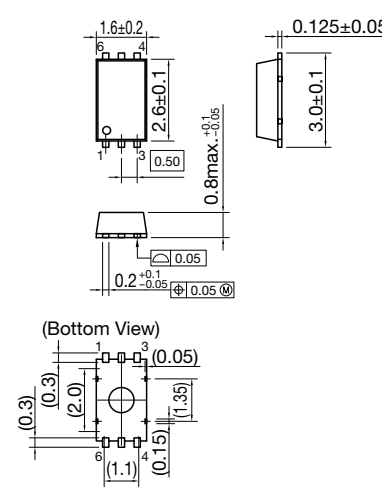
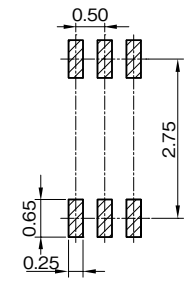
Package

Package Name	Dimensional Drawing	Recommended Land Pattern
<p>QFP-100A</p>	 <p>Top view dimensions: 20.0±0.2, 23.2±0.3, 14.0±0.2, 17.2±0.3, 80, 51, 81, 100, 1, 30, 31, 50.</p> <p>Lead dimensions: 0.15^{+0.08}/_{-0.04}, 0.8±0.20, 0-10°.</p> <p>Side view dimensions: 0.65, 0.30^{+0.10}/_{-0.08}, 0.10, 0.13, 0.35^{+0.15}/_{-0.10}, 3.22±0.18, (2.79).</p>	 <p>Land pattern dimensions: 0.65, 1.5, 0.35, 20.6, 14.6.</p>
<p>SC-82ABA</p>	 <p>Top view dimensions: 2.0±0.1, 1.3±0.2, 0.3, 0.3, 0.3, 0.3, 1.25±0.1, 0.4, (0.15), 1, 2, 3, 4.</p> <p>Lead dimensions: 0.125^{+0.100}/_{-0.025}, (0.3), 2.1±0.3.</p> <p>Side view dimensions: (0.9), 0.05±0.05, 0.95±0.15, 0.3^{+0.10}/_{-0.05}, (0.4^{+0.10}/_{-0.05}), 0.10, 0.10.</p>	 <p>Land pattern dimensions: 1.3, 0.3, 1.9, 0.8, 0.6, 0.7.</p>

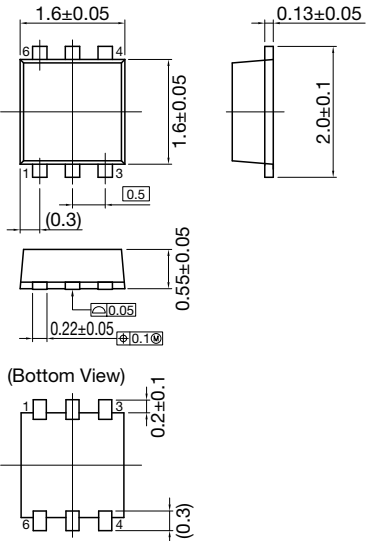
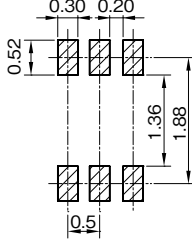
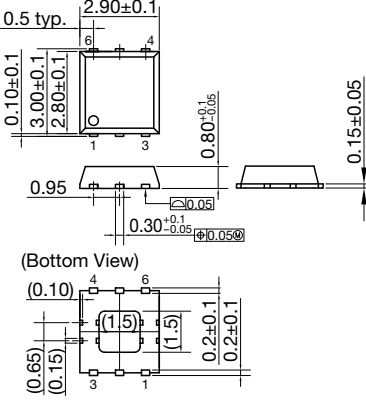
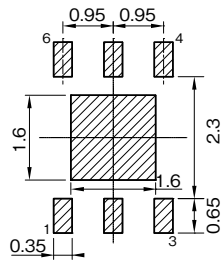
Package

Package Name	Dimensional Drawing	Recommended Land Pattern
<p>SC-82ABB</p>	<p>Top view dimensions: 2.0±0.1, 1.3±0.2, 0.3, 0.3, 0.3, 0.3, 1.25±0.10, 0.4, (0.15), 0.3, 1, 2, 3, 4.</p> <p>Side view dimensions: 0.125^{+0.100}/_{-0.025}, (0.3), 2.1±0.1.</p> <p>Bottom view dimensions: (0.85), 0.3^{+0.10}/_{-0.05}, (0.4^{+0.10}/_{-0.05}), 0.10, 0.10, 0.05±0.05, 0.9±0.1.</p>	<p>Land pattern dimensions: 1.3, 1.9, 0.3, 0.8, 0.6, 0.7.</p>
<p>SC-88A</p>	<p>Top view dimensions: 2.0±0.1, (0.65), (0.65), 6, 4, 1.25±0.1, 1, 3.</p> <p>Side view dimensions: 0.125^{+0.100}/_{-0.025}, (0.3), 2.1±0.1.</p> <p>Bottom view dimensions: (0.85), 0.22^{+0.10}/_{-0.05}, (0.10), 0.10, 0.05±0.05, 0.9±0.1.</p>	<p>Land pattern dimensions: 0.65, 0.65, 1.8, 0.7, 0.35.</p>

Package

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

Package

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

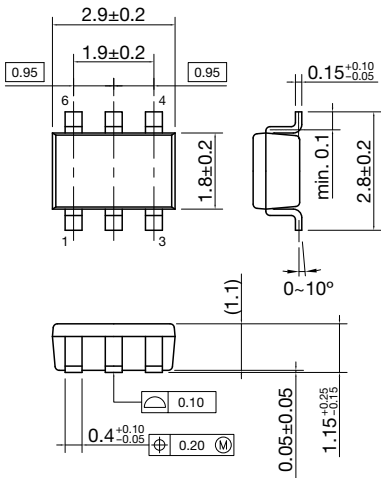
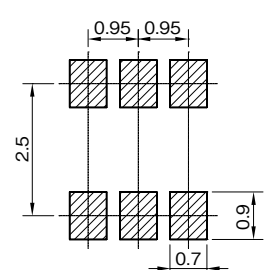
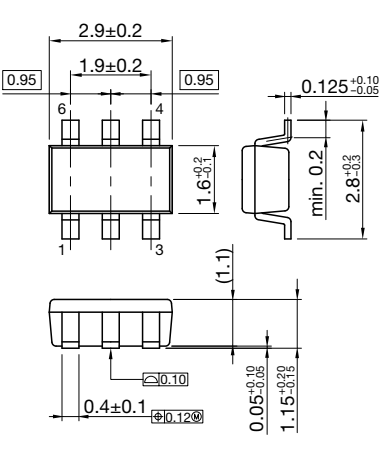
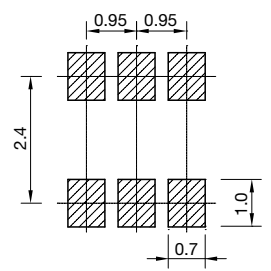
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Package

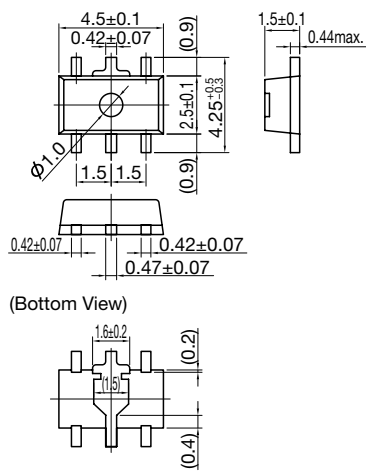
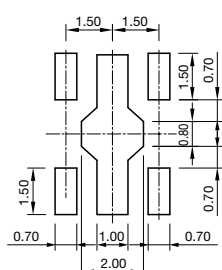
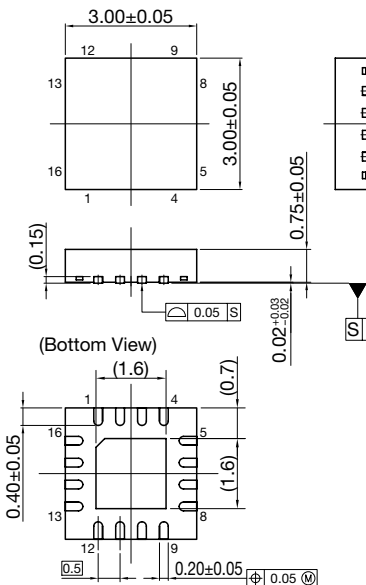
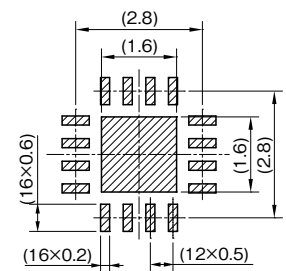
Package

Package Name	Dimensional Drawing	Recommended Land Pattern
<p>SOT-23A</p>	<p>Top view: 2.9±0.2, 1.9, 0.95, 0.95, 1.6±0.2, 1.9, 0.95, 0.95</p> <p>Side view: 0.15±0.10, min. 0.2, 2.8±0.2</p> <p>Detail view: (1.1), 0.4±0.10, 0.05±0.10, 1.15±0.25</p>	<p>Land pattern dimensions: 0.7, 1.0, 2.4, 0.95, 0.95</p>
<p>SOT-25A</p>	<p>Top view: 2.9±0.2, 1.9±0.2, 0.95, 0.95, 1.6±0.2, 1.9±0.2, 0.95, 0.95</p> <p>Side view: 0.15±0.10, min. 0.2, 2.8±0.2</p> <p>Detail view: (1.1), 0.4±0.10, 0.05±0.05, 1.15±0.25</p>	<p>Land pattern dimensions: 0.7, 1.0, 2.4, 0.95, 0.95</p>

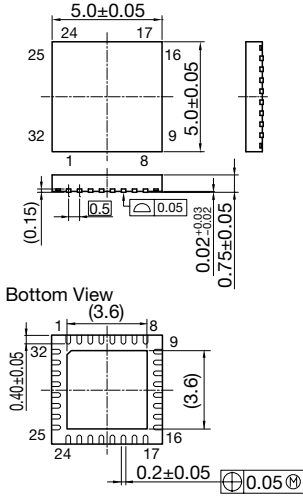
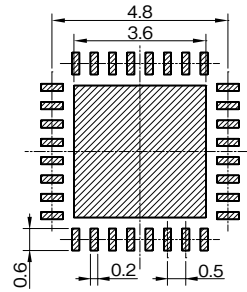
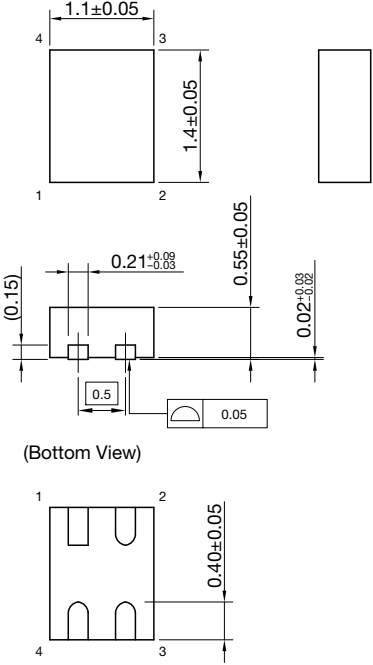
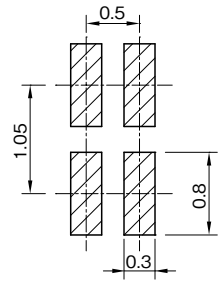
Package

Package Name	Dimensional Drawing	Recommended Land Pattern
<p>SOT-26A</p>		
<p>SOT-26B</p>		

Package

Package Name	Dimensional Drawing	Recommended Land Pattern
<p>SOT89-5A</p>	 <p>Top View: 4.5 ± 0.1, 0.42 ± 0.07 (0.9), 2.5 ± 0.1, $4.25^{+0.3}_{-0.3}$, $\phi 1.0$, 1.5, 1.5, 0.9</p> <p>Side View: 1.5 ± 0.1, 0.44max.</p> <p>Bottom View: 0.42 ± 0.07, 0.42 ± 0.07, 0.47 ± 0.07</p> <p>(Bottom View): 1.6 ± 0.2 (0.2), 0.4</p>	 <p>Land Pattern Dimensions: 1.50, 1.50, 1.50, 0.70, 0.80, 0.70, 1.00, 2.00, 0.70</p>
<p>SQFN-16A</p>	 <p>Top View: 3.00 ± 0.05, 12, 9, 13, 8, 3.00 ± 0.05, 16, 5, 1, 4</p> <p>Side View: 0.15, 0.75 ± 0.05, 0.05 S, $0.02^{+0.02}_{-0.02}$, S</p> <p>(Bottom View): 0.40 ± 0.05, 16, 13, 12, 9, 1.6, 4, 5, 8, 1.6, 0.20 ± 0.05, $\phi 0.05$ (M)</p>	 <p>Land Pattern Dimensions: (2.8), (1.6), (16×0.6), (16×0.2), (12×0.5), (1.6), (2.8)</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>Dimensions: 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>Dimensions: 0.5, 1.05, 0.8, 0.3</p>

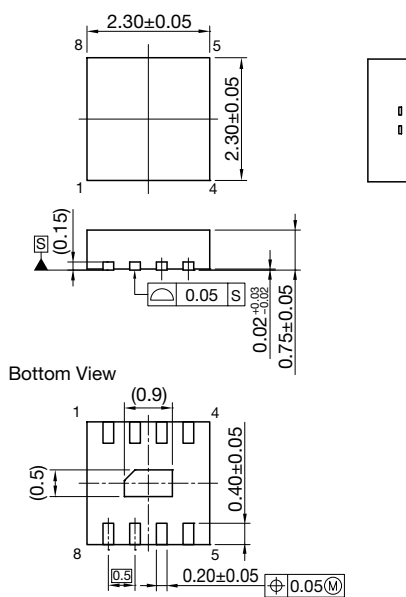
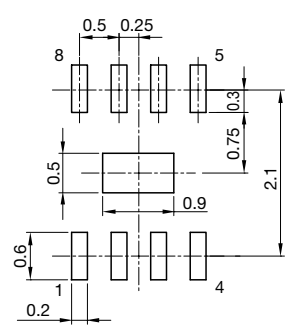
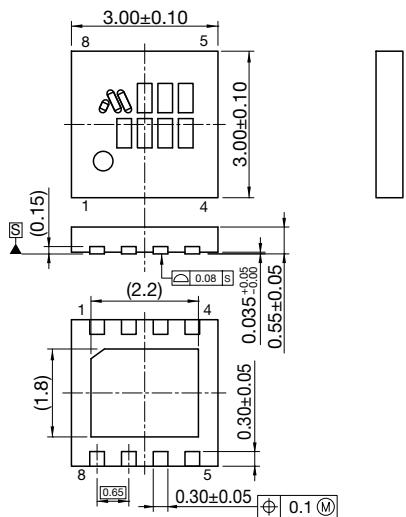
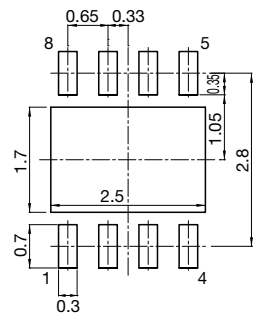
Package

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</p> <p>Side View: 0.55±0.05, 0.02±0.008</p> <p>Bottom View: 0.20±0.05, 0.05, 0.35±0.05, 0.8, 0.15, 0.5</p>	<p>0.5, 0.5, 0.15, 0.8, 0.625, 0.625, 0.2, 0.2</p>
<p>SSON-6L</p>	<p>Top View: 2.0±0.05</p> <p>Side View: 0.75±0.05, 0.02±0.008</p> <p>Bottom View: 0.3±0.05, 0.05, 0.25±0.05, 1.8, 1.6, 1.0, 0.65</p>	<p>0.65, 0.45, 1.6, 1.0, 0.30, 0.26</p>

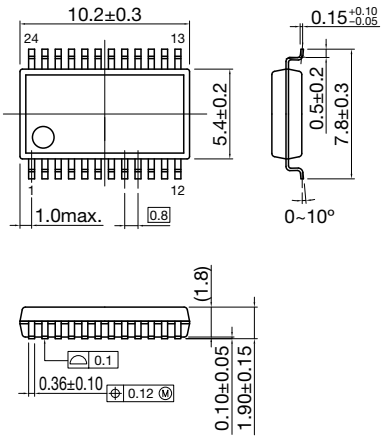
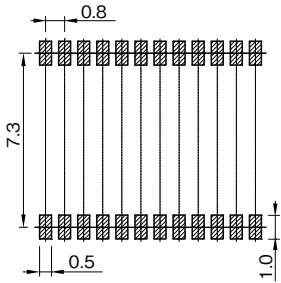
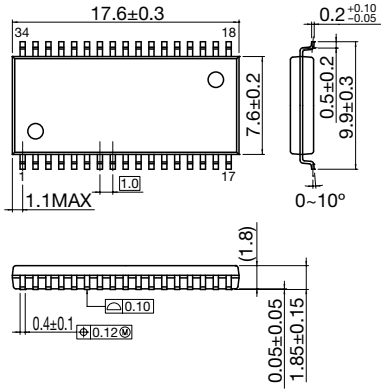
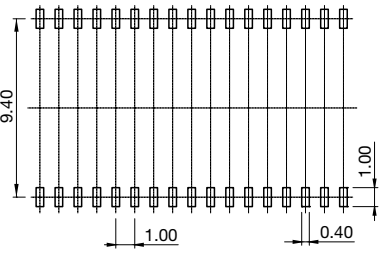
Package

Package Name	Dimensional Drawing	Recommended Land Pattern
<p>SSON-8B</p>	 <p>Top View: Overall width 2.30±0.05, pin pitch 0.5, pin width 0.25, pin offset 0.3. Pin positions 1, 4, 5, 8.</p> <p>Side View: Package height 0.75±0.05, lead height 0.02±0.002, lead thickness 0.05, lead angle 0.15°. Pin diameter 0.05.</p> <p>Bottom View: Pin pitch 0.20±0.05, pin width 0.5, pin offset 0.40±0.05, pin positions 1, 4, 5, 8. Pin diameter 0.05.</p>	 <p>Pin pitch 0.5, pin width 0.25, pin offset 0.3. Pin positions 1, 4, 5, 8. Pad width 0.6, pad offset 0.2. Pad length 0.9, pad offset 0.75. Pad length 2.1.</p>
<p>SSON-8C</p>	 <p>Top View: Overall width 3.00±0.10, pin pitch 0.5, pin width 0.33, pin offset 0.3. Pin positions 1, 4, 5, 8.</p> <p>Side View: Package height 0.55±0.05, lead height 0.035±0.005, lead thickness 0.08, lead angle 0.15°. Pin diameter 0.08.</p> <p>Bottom View: Pin pitch 0.30±0.05, pin width 0.65, pin offset 0.30±0.05, pin positions 1, 4, 5, 8. Pin diameter 0.05.</p>	 <p>Pin pitch 0.5, pin width 0.33, pin offset 0.3. Pin positions 1, 4, 5, 8. Pad width 0.7, pad offset 0.3. Pad length 1.05, pad offset 1.7. Pad length 2.8.</p>

Package

Package Name	Dimensional Drawing	Recommended Land Pattern
<p>SSON-10A</p>	<p>Top View: Overall width 2.7, pin pitch 0.5, pin width 0.15, pin length 0.55, distance from center to pin 1 1.0, distance from center to pin 6 0.6, distance from center to pin 5 2.5.</p> <p>Side View: Pin height 0.15, package height 0.55, lead thickness 0.02, lead width 0.05, lead angle A.</p> <p>Bottom View: Pin pitch 0.5, pin width 0.3, pin length 0.1, distance from center to pin 1 0.1, distance from center to pin 5 0.5, distance from center to pin 10 0.25, distance from center to pin 6 1.5, distance from center to pin 10 0.5, distance from center to pin 6 0.2.</p>	<p>Land Pattern: Pad pitch 0.50, pad width 0.45, pad length 1.50, pad height 2.90, distance from center to pad 1 0.10, distance from center to pad 6 0.20.</p>
<p>SSOP-8A</p>	<p>Top View: Overall width 2.0 ± 0.3, pin pitch 0.5, distance from center to pin 8 0.25, distance from center to pin 5 0.7, distance from center to pin 4 0.5.</p> <p>Side View: Pin height 0.13, package height 3.1 ± 0.3, lead thickness MIN 0.1, lead angle $0-10^\circ$.</p> <p>Bottom View: Pin pitch 0.5, pin width 0.2, pin length $0.05^{+0.10}_{-0.04}$, distance from center to pin 8 0.1, distance from center to pin 4 0.75, distance from center to pin 4 0.75 ± 0.15.</p>	<p>Land Pattern: Pad pitch 0.50, pad width 0.55, pad length 3.05, distance from center to pad 0.25.</p>

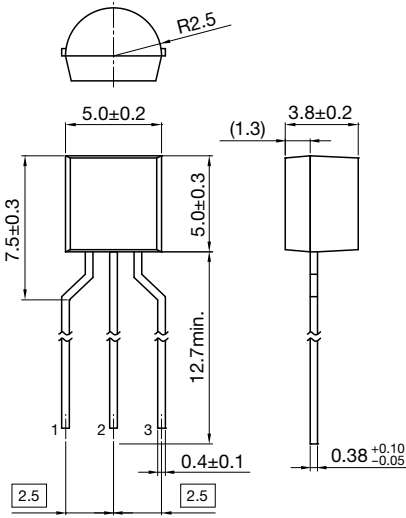
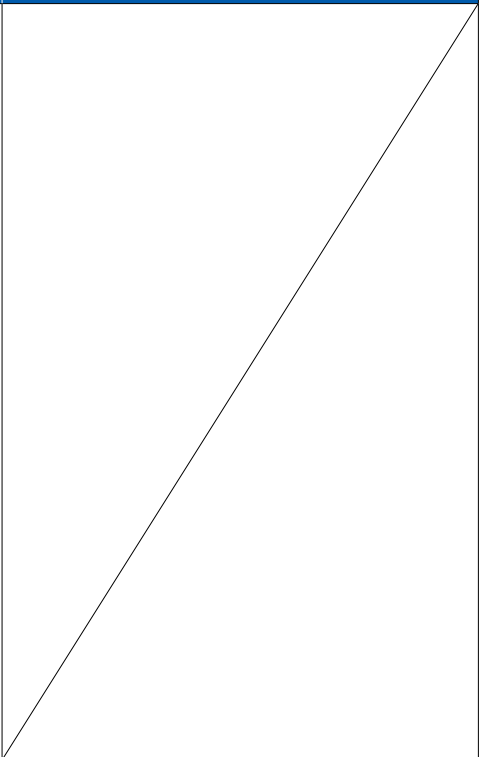
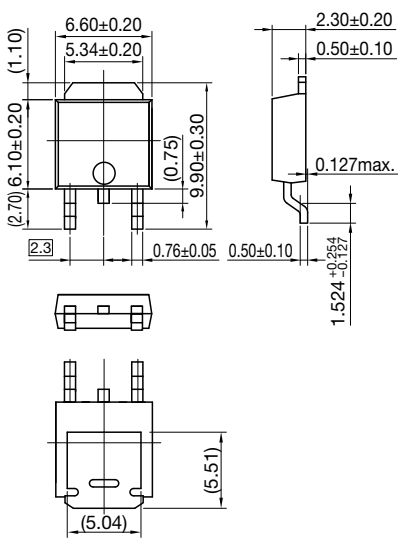
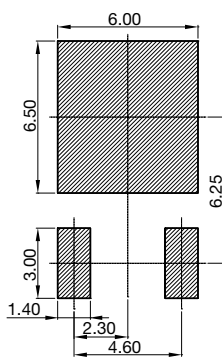
Package

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

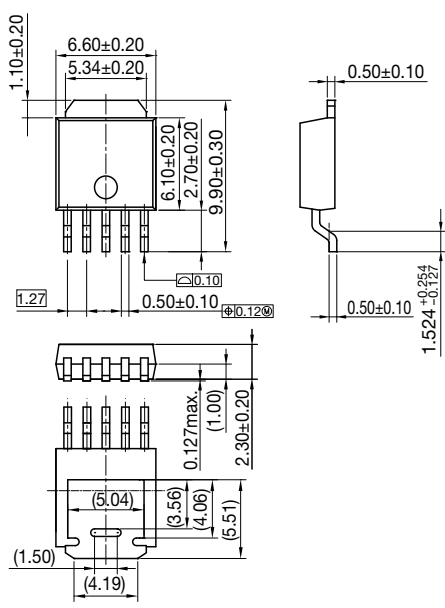
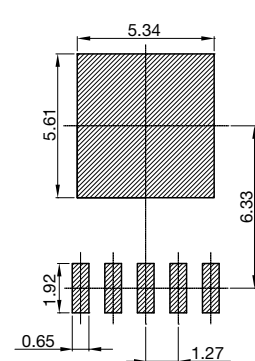
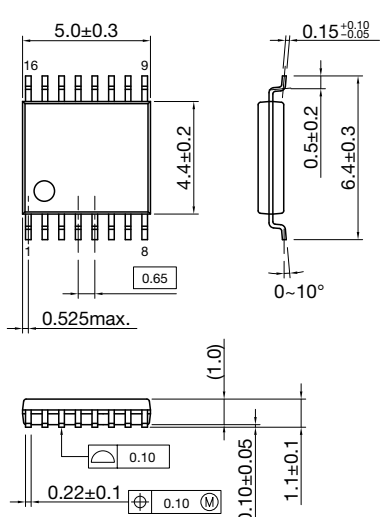
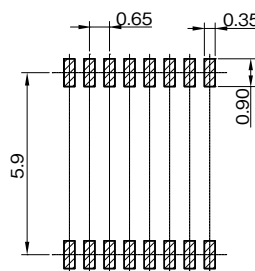
Package

Package Name	Dimensional Drawing	Recommended Land Pattern
<p>SSOP-36A</p>	<p>Top view: 15.0±0.3, 36, 19, 18, 1.0max., 0.8</p> <p>Side view: 5.4±0.2, 0.15^{+0.10}/_{-0.05}, 0.5±0.2, 7.8±0.3, 0~10°</p> <p>End view: 0.4±0.1, 0.10±0.05, 1.90±0.10, 1.8, 0.10, 0.10</p>	<p>Land pattern dimensions: 0.8, 9.4, 0.5, 1.0</p>
<p>SSOP-42A</p>	<p>Top view: 17.6±0.3, 42, 23, 21, 1.1max., 0.8</p> <p>Side view: 7.6±0.2, 0.2^{+0.10}/_{-0.05}, 0.5±0.2, 9.9±0.3, 0~10°</p> <p>End view: 0.35±0.10, 0.12, 0.1, 0.05±0.05, 1.85±0.15, 1.8</p>	<p>Land pattern dimensions: 0.8, 9.4, 0.5, 1.0</p>

Package

Package Name	Dimensional Drawing	Recommended Land Pattern
<p>TO-92A</p>	 <p>Dimensional drawing of TO-92A package showing top, side, and detail views. Key dimensions include: top diameter 5.0 ± 0.2, height 7.5 ± 0.3, lead length 12.7 min., lead diameter 0.4 ± 0.1, and lead thickness 0.38 with a tolerance of $+0.10 / -0.05$. A detail view shows a lead diameter of 3.8 ± 0.2 and a length of 1.3. A top view shows a radius of $R2.5$.</p>	 <p>Blank recommended land pattern for TO-92A package, indicated by a diagonal line across the cell.</p>
<p>TO-252C</p>	 <p>Dimensional drawing of TO-252C package showing top, side, and bottom views. Key dimensions include: top diameter 6.60 ± 0.20, inner diameter 5.34 ± 0.20, height 6.10 ± 0.20, lead length 9.90 ± 0.30, lead diameter 0.76 ± 0.05, lead thickness 0.50 ± 0.10, and lead diameter at the base 1.524 with a tolerance of $+0.254 / -0.127$. A detail view shows a lead diameter of 2.30 ± 0.20 and a length of 0.50 ± 0.10. A bottom view shows a diameter of 5.04 and a height of 5.51.</p>	 <p>Recommended land pattern for TO-252C package showing a square pad with a side length of 6.00 and a height of 6.25. Lead pads are shown with a diameter of 3.00 and a height of 1.40. The distance between lead pads is 2.30 and the distance from the center to the lead pad edge is 4.60.</p>

Package

Package Name	Dimensional Drawing	Recommended Land Pattern
<p>TO-252-5A</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, 0.127, 0.10, 0.50±0.10, 1.524^{+0.254}/_{-0.127}.</p> <p>Side view dimensions: 0.50±0.10, 1.524^{+0.254}/_{-0.127}.</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>TSOP-16A</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^{+0.10}/_{-0.05}, 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>TSOP-16B</p>		
<p>TSOP-16D</p>		

Package

Package Name	Dimensional Drawing	Recommended Land Pattern
<p>TSOP-20A</p>		
<p>TSOP-20B</p>	<p>(Bottom View)</p>	

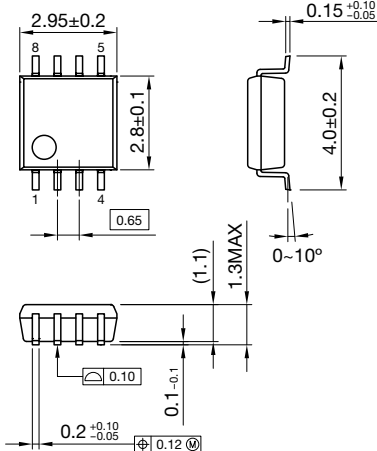
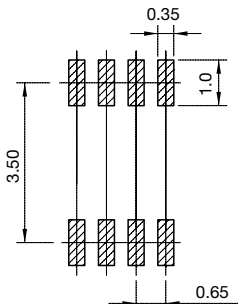
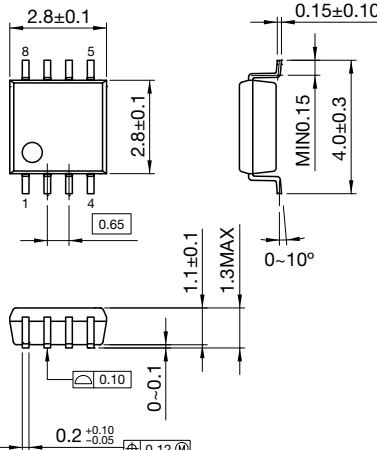
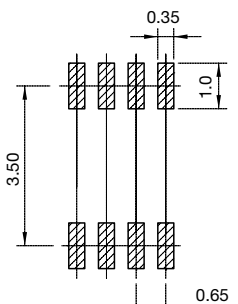
Package

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

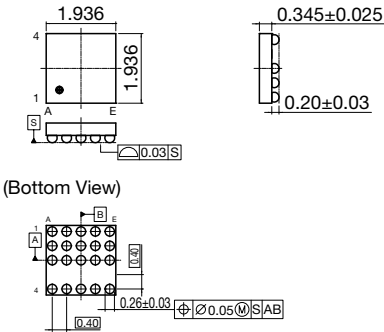
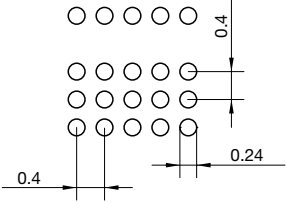
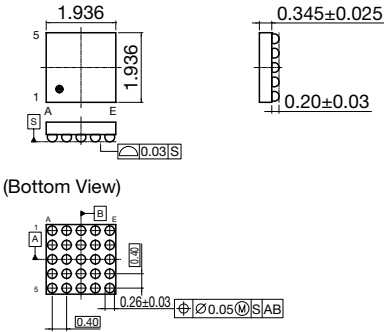
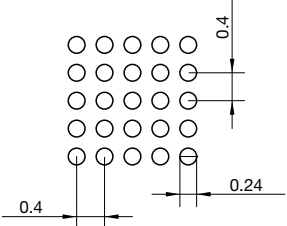
Package

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

Package

Package Name	Dimensional Drawing	Recommended Land Pattern
<p>VSOP-8C</p>	 <p>Dimensional drawing of VSOP-8C package showing top, side, and bottom views. Key dimensions include: top width 2.95 ± 0.2, top height 2.8 ± 0.1, lead width $0.15^{+0.10}_{-0.05}$, total height 4.0 ± 0.2, lead angle $0 \sim 10^\circ$, bottom lead length 1.3 MAX, bottom lead offset 0.1, bottom lead diameter $\phi 0.12$, and bottom lead thickness $0.2^{+0.10}_{-0.05}$.</p>	 <p>Recommended land pattern for VSOP-8C showing a 3x4 grid of pads. Pad pitch is 3.50, pad width is 0.35, and pad length is 1.0. The overall width of the pad array is 0.65.</p>
<p>VSOP-8D</p>	 <p>Dimensional drawing of VSOP-8D package showing top, side, and bottom views. Key dimensions include: top width 2.8 ± 0.1, top height 2.8 ± 0.1, lead width 0.15 ± 0.10, total height 4.0 ± 0.3, lead angle $0 \sim 10^\circ$, bottom lead length 1.3 MAX, bottom lead offset 1.1 ± 0.1, bottom lead diameter $\phi 0.12$, and bottom lead thickness $0.2^{+0.10}_{-0.05}$.</p>	 <p>Recommended land pattern for VSOP-8D showing a 3x4 grid of pads. Pad pitch is 3.50, pad width is 0.35, and pad length is 1.0. The overall width of the pad array is 0.65.</p>

Package

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

Package

Package Name	Dimensional Drawing	Recommended Land Pattern
<p>WLCSP-48A</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>