1.0 Introduction

MACOM supplies integrated circuits, diodes, and related surface mount components in tape wound on standard 7-inch and 13-inch diameter reels. This application note documents the reel and tape dimensions and the orientation of the components within the tape cavities for many of our most popular package styles.

Packages Covered in This Application Note:

<table>
<thead>
<tr>
<th>Package Type</th>
<th>Package Type</th>
<th>Package Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mm X1DFN-6LD</td>
<td>ODS-120 (ceramic)</td>
<td>SM-28</td>
</tr>
<tr>
<td>1.2 x 1.5 mm TDFN-6LD (0.5 mm pitch)</td>
<td>ODS-186 (ceramic)</td>
<td>SM-41</td>
</tr>
<tr>
<td>1.5 x 1.2 mm TDFN-6LD (0.4 mm pitch)</td>
<td>ODS-1056 (ceramic)</td>
<td>SM-44</td>
</tr>
<tr>
<td>2 mm PDFN-8LD</td>
<td>ODS-1072 (MELF)</td>
<td>SM-46</td>
</tr>
<tr>
<td>2 mm STDFN-8LD</td>
<td>ODS-1079 (MELF)</td>
<td>SM-52</td>
</tr>
<tr>
<td>2 mm STQFN-12LD</td>
<td>ODS-1091 (MELF)</td>
<td>SM-55</td>
</tr>
<tr>
<td>2 x 2.5 mm STQFN-14LD</td>
<td>ODS-1269 (GaAs flip-chip)</td>
<td>SM-68 (same as SM-44)</td>
</tr>
<tr>
<td>3 mm PQFN-12LD</td>
<td>ODS-1294 (surmount)</td>
<td>SM-69 (same as SM-1)</td>
</tr>
<tr>
<td>3 mm PQFN-12LD (1.1 mm Height)</td>
<td>ODS-1295 (surmount)</td>
<td>SM-74 (same as SM-2)</td>
</tr>
<tr>
<td>3 mm PQFN-16LD</td>
<td>ODS-1305 (GaAs flip-chip)</td>
<td>SM-87 (same as SM-1)</td>
</tr>
<tr>
<td>4 mm PQFN-16LD</td>
<td>ODS-1306 (surmount)</td>
<td>SM-89 (same as SM-1)</td>
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<tr>
<td>4 mm PQFN-20LD</td>
<td>ODS-1402 (GaAs flip-chip)</td>
<td>SM-106</td>
</tr>
<tr>
<td>4 mm PQFN-24LD</td>
<td>ODS-1411 (GaAs flip-chip)</td>
<td>SM-108 (same as SM-2)</td>
</tr>
<tr>
<td>4 x 6 mm PQFN-32LD</td>
<td>ODS-1500 (GaAs flip-chip)</td>
<td>SM-134 (same as SM-1)</td>
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<tr>
<td>4 x 7 mm PQFN-36LD</td>
<td>QSOP-16, QSOP-16EP</td>
<td>SOD-323</td>
</tr>
<tr>
<td>5 mm PQFN-20LD</td>
<td>QSOP-24</td>
<td>SOIC-8</td>
</tr>
<tr>
<td>5 mm PQFN-28LD</td>
<td>QSOP-28</td>
<td>SOIC-14</td>
</tr>
<tr>
<td>5 mm PQFN-32LD</td>
<td>R-1, R-4, R-5, R-15</td>
<td>SOIC-16</td>
</tr>
<tr>
<td>5 x 6 mm PQFN-32LD</td>
<td>SC70-3LD</td>
<td>SOIC-16 Wide Body</td>
</tr>
<tr>
<td>6 x 7 mm PQFN-37LD</td>
<td>SC70-6LD</td>
<td>SOIC-24 Wide Body</td>
</tr>
<tr>
<td>7 mm LGA-16</td>
<td>SC-79</td>
<td>SOT-23</td>
</tr>
<tr>
<td>8 mm BGA</td>
<td>SM-1</td>
<td>SOT-25 (same as SOT-23 (5LD))</td>
</tr>
<tr>
<td>15 mm BGA</td>
<td>SM-2</td>
<td>SOT-26 (same as SOT-23 (6LD))</td>
</tr>
<tr>
<td>BD-1, BD-2, BD-3 (Bumped Die)</td>
<td>SM-3</td>
<td>SOT-89</td>
</tr>
<tr>
<td>CR-5</td>
<td>SM-4 (same as SM-2)</td>
<td>SOT-143</td>
</tr>
<tr>
<td>LCC1</td>
<td>SM-7-1</td>
<td>SOW-16 (same as SOIC-16 Wide Body)</td>
</tr>
<tr>
<td>LSM1</td>
<td>SM-20</td>
<td>SOW-24 (same as SOIC-24 Wide Body)</td>
</tr>
<tr>
<td>LSM2</td>
<td>SM-22</td>
<td>SSOP-8</td>
</tr>
<tr>
<td>LSM3</td>
<td>SM-23 (same as SM-1)</td>
<td>SSOP-20</td>
</tr>
<tr>
<td>LSM6</td>
<td>SM-24</td>
<td>SSOP-24</td>
</tr>
<tr>
<td>MSOP-8, MSOP-8EP</td>
<td>SM-26</td>
<td>SSOP-28</td>
</tr>
<tr>
<td>MSOP-10</td>
<td></td>
<td>TSSOP-16, TSSOP-16EP</td>
</tr>
</tbody>
</table>

For further information and support please visit: https://www.macom.com/support
2.0 Reel Dimensions

Reel Diameter = \( A \)

W₁ & W₂ measured at hub.

Reel Dimensions in mm

<table>
<thead>
<tr>
<th>W  Tape Width²</th>
<th>( W₁ ) (+2.0/-0.0)</th>
<th>( W₂ ) (max.)</th>
<th>N (min.)</th>
<th>B (min.)</th>
<th>C (+0.5/-0.2)</th>
<th>D (min.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A = 7 inch</td>
<td>A = 13 inch</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>8.4</td>
<td>14.4</td>
<td>50</td>
<td>1.5</td>
<td>13</td>
<td>20.2</td>
</tr>
<tr>
<td>12</td>
<td>12.4</td>
<td>18.4</td>
<td>50</td>
<td>1.5</td>
<td>13</td>
<td>20.2</td>
</tr>
<tr>
<td>16</td>
<td>16.4</td>
<td>22.4</td>
<td>50</td>
<td>1.5</td>
<td>13</td>
<td>20.2</td>
</tr>
<tr>
<td>24</td>
<td>24.4</td>
<td>30.4</td>
<td>N/A</td>
<td>1.5</td>
<td>13</td>
<td>20.2</td>
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<tr>
<td>32</td>
<td>32.4</td>
<td>38.4</td>
<td>N/A</td>
<td>1.5</td>
<td>13</td>
<td>20.2</td>
</tr>
</tbody>
</table>

1. See section 5.0 Reel Diameter Dimensions.
2. See section 3.0 Tape Dimensions.
## 3.0 Tape Dimensions

<table>
<thead>
<tr>
<th>Tape Dimensions</th>
<th>Description</th>
<th>Symbol</th>
<th>Size (mm)</th>
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</thead>
<tbody>
<tr>
<td><strong>Perforation</strong></td>
<td>Diameter</td>
<td>$D_0$</td>
<td>1.5 +0.1 / -0.0</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>$P_0$</td>
<td>4 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Position</td>
<td>$E_1$</td>
<td>1.75 ± 0.1</td>
</tr>
<tr>
<td><strong>Cover Tape</strong></td>
<td>Thickness</td>
<td>$T$</td>
<td>0.25 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Thickness</td>
<td>$T_1$</td>
<td>0.06 ± 0.02</td>
</tr>
</tbody>
</table>

Notes:
1. 10 sprocket hole cumulative tolerance ± 0.2
2. Dimensions in millimeters (mm).
3. Not to exact scale.
4. Camber not to exceed 1 mm in 100 mm.
5. Pocket position relative to sprocket hole measured as true position of pocket, not pocket hole.
6. Metric dimensions will govern.
# Tape and Reel Packaging for Surface Mount Components

## 1 mm X1DFN-6LD

<table>
<thead>
<tr>
<th>Tape Dimensions</th>
<th>Description</th>
<th>Symbol</th>
<th>Size (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cavity</strong></td>
<td>Length</td>
<td>A₀</td>
<td>1.2 + 0.0/-0.05</td>
</tr>
<tr>
<td></td>
<td>Width</td>
<td>B₀</td>
<td>1.2 + 0.0/-0.05</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>K₀</td>
<td>0.55 ± 0.05</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>4 ± 0.1</td>
</tr>
<tr>
<td><strong>Distance Between Centerlines</strong></td>
<td>Cavity to Perforation (length)</td>
<td>P₂</td>
<td>2 ± 0.05</td>
</tr>
<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
<td>F</td>
<td>3.5 ± 0.1</td>
</tr>
<tr>
<td><strong>Cover Tape</strong></td>
<td>Width</td>
<td>C</td>
<td>5.5 ± 0.1</td>
</tr>
<tr>
<td><strong>Carrier Tape</strong></td>
<td>Width</td>
<td>W</td>
<td>8 ± 0.3</td>
</tr>
</tbody>
</table>

## 1.2 x 1.5 mm TDFN-6LD (0.5 mm Lead Pitch) & 1.5 x 1.2 mm TDFN-6LD (0.4 mm Lead Pitch)

<table>
<thead>
<tr>
<th>Tape Dimensions</th>
<th>Description</th>
<th>Symbol</th>
<th>Size (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cavity</strong></td>
<td>Length</td>
<td>A₀</td>
<td>1.75 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Width</td>
<td>B₀</td>
<td>1.35 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>K₀</td>
<td>1.02 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>4 ± 0.1</td>
</tr>
<tr>
<td><strong>Distance Between Centerlines</strong></td>
<td>Cavity to Perforation (length)</td>
<td>P₂</td>
<td>2 ± 0.05</td>
</tr>
<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
<td>F</td>
<td>3.5 ± 0.05</td>
</tr>
<tr>
<td><strong>Cover Tape</strong></td>
<td>Width</td>
<td>C</td>
<td>5.4 ± 0.1</td>
</tr>
<tr>
<td><strong>Carrier Tape</strong></td>
<td>Width</td>
<td>W</td>
<td>8 +0.3/-0.1</td>
</tr>
</tbody>
</table>

## 2 mm PDFN-8LD

<table>
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<th>Description</th>
<th>Symbol</th>
<th>Size (mm)</th>
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</thead>
<tbody>
<tr>
<td><strong>Cavity</strong></td>
<td>Length</td>
<td>A₀</td>
<td>2.42 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Width</td>
<td>B₀</td>
<td>2.42 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>K₀</td>
<td>1.1 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>4 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Diameter</td>
<td>D₁</td>
<td>1 ± 0.1</td>
</tr>
<tr>
<td><strong>Distance Between Centerlines</strong></td>
<td>Cavity to Perforation (length)</td>
<td>P₂</td>
<td>2 ± 0.05</td>
</tr>
<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
<td>F</td>
<td>5.5 ± 0.1</td>
</tr>
<tr>
<td><strong>Cover Tape</strong></td>
<td>Width</td>
<td>C</td>
<td>9.2 ± 0.1</td>
</tr>
<tr>
<td><strong>Carrier Tape</strong></td>
<td>Width</td>
<td>W</td>
<td>12 ± 0.3</td>
</tr>
</tbody>
</table>
Tape and Reel Packaging for Surface Mount Components

2 mm STDFN-8LD, 2 mm STQFN-12LD

<table>
<thead>
<tr>
<th>Tape Dimensions</th>
<th>Description</th>
<th>Symbol</th>
<th>Size (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cavity</td>
<td>Length</td>
<td>A₀</td>
<td>2.3 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Width</td>
<td>B₀</td>
<td>2.3 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>K₀</td>
<td>0.75 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>4 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Diameter</td>
<td>D₁</td>
<td>1 ± 0.25</td>
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<td>Distance Between</td>
<td>Cavity to Perforation (length)</td>
<td>P₂</td>
<td>2 ± 0.05</td>
</tr>
<tr>
<td>Centerlines</td>
<td>Cavity to Perforation (width)</td>
<td>F</td>
<td>3.5 ± 0.05</td>
</tr>
<tr>
<td>Cover Tape</td>
<td>Width</td>
<td>C</td>
<td>5.5 ± 0.1</td>
</tr>
<tr>
<td>Carrier Tape</td>
<td>Width</td>
<td>W</td>
<td>8 ± 0.3</td>
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</table>

2 x 2.5 mm STQFN-14LD

<table>
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<th>Description</th>
<th>Symbol</th>
<th>Size (mm)</th>
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<tbody>
<tr>
<td>Cavity</td>
<td>Length</td>
<td>A₀</td>
<td>2.2 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Width</td>
<td>B₀</td>
<td>2.7 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>K₀</td>
<td>0.7 ± 0.05</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>4 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Diameter</td>
<td>D₁</td>
<td>0.7 ± 0.1</td>
</tr>
<tr>
<td>Distance Between</td>
<td>Cavity to Perforation (length)</td>
<td>P₂</td>
<td>2 ± 0.05</td>
</tr>
<tr>
<td>Centerlines</td>
<td>Cavity to Perforation (width)</td>
<td>F</td>
<td>3.5 ± 0.1</td>
</tr>
<tr>
<td>Cover Tape</td>
<td>Width</td>
<td>C</td>
<td>5.5 ± 0.1</td>
</tr>
<tr>
<td>Carrier Tape</td>
<td>Width</td>
<td>W</td>
<td>8 ± 0.3</td>
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3 mm PQFN-12LD, 3 mm PQFN-16LD

<table>
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<th>Description</th>
<th>Symbol</th>
<th>Size (mm)</th>
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<tbody>
<tr>
<td>Cavity</td>
<td>Length</td>
<td>A₀</td>
<td>3.3 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Width</td>
<td>B₀</td>
<td>3.3 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>K₀</td>
<td>1.1 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>8 ± 0.1</td>
</tr>
<tr>
<td>Distance Between</td>
<td>Cavity to Perforation (length)</td>
<td>P₂</td>
<td>2 ± 0.1</td>
</tr>
<tr>
<td>Centerlines</td>
<td>Cavity to Perforation (width)</td>
<td>F</td>
<td>5.5 ± 0.1</td>
</tr>
<tr>
<td>Cover Tape</td>
<td>Width</td>
<td>C</td>
<td>9.2 ± 0.1</td>
</tr>
<tr>
<td>Carrier Tape</td>
<td>Width</td>
<td>W</td>
<td>12 ± 0.3</td>
</tr>
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</table>
### 3 mm PQFN-12LD (1.1 mm Height)

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<th>Description</th>
<th>Symbol</th>
<th>Size (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cavity</strong></td>
<td>Length</td>
<td>A₀</td>
<td>3.3 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Width</td>
<td>B₀</td>
<td>3.3 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>K₀</td>
<td>1.3 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>8 ± 0.1</td>
</tr>
<tr>
<td><strong>Distance Between Centerlines</strong></td>
<td>Cavity to Perforation (length)</td>
<td>P₂</td>
<td>2 ± 0.05</td>
</tr>
<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
<td>F</td>
<td>5.5 ± 0.05</td>
</tr>
<tr>
<td><strong>Cover Tape</strong></td>
<td>Width</td>
<td>C</td>
<td>9.2 ± 0.1</td>
</tr>
<tr>
<td><strong>Carrier Tape</strong></td>
<td>Width</td>
<td>W</td>
<td>12 ± 0.3</td>
</tr>
</tbody>
</table>

### 4 mm PQFN-16LD, 4 mm PQFN-20LD, 4 mm PQFN-24LD

<table>
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<th>Description</th>
<th>Symbol</th>
<th>Size (mm)</th>
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<tbody>
<tr>
<td><strong>Cavity</strong></td>
<td>Length</td>
<td>A₀</td>
<td>4.35 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Width</td>
<td>B₀</td>
<td>4.35 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>K₀</td>
<td>1.1 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>8 ± 0.1</td>
</tr>
<tr>
<td><strong>Distance Between Centerlines</strong></td>
<td>Cavity to Perforation (length)</td>
<td>P₂</td>
<td>2 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
<td>F</td>
<td>5.5 ± 0.1</td>
</tr>
<tr>
<td><strong>Cover Tape</strong></td>
<td>Width</td>
<td>C</td>
<td>9.2 ± 0.1</td>
</tr>
<tr>
<td><strong>Carrier Tape</strong></td>
<td>Width</td>
<td>W</td>
<td>12 ± 0.3</td>
</tr>
</tbody>
</table>

### 4 x 6 mm PQFN-32LD

<table>
<thead>
<tr>
<th>Tape Dimensions</th>
<th>Description</th>
<th>Symbol</th>
<th>Size (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cavity</strong></td>
<td>Length</td>
<td>A₀</td>
<td>4.2 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Width</td>
<td>B₀</td>
<td>6.2 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>K₀</td>
<td>1.2 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>8 ± 0.1</td>
</tr>
<tr>
<td><strong>Carrier Tape</strong></td>
<td>Width</td>
<td>W</td>
<td>12 ± 0.3</td>
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</tbody>
</table>
Tape and Reel Packaging for Surface Mount Components

4 x 7 PQFN-36LD

<table>
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<th>Description</th>
<th>Symbol</th>
<th>Size (mm)</th>
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<td>Depth</td>
<td>K₀</td>
<td>1.2 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>8 ± 0.1</td>
</tr>
<tr>
<td>Carrier Tape</td>
<td>Width</td>
<td>W</td>
<td>12 ± 0.3</td>
</tr>
</tbody>
</table>

5 mm PQFN-20LD, 5 mm PQFN-28LD, 5 mm PQFN-32LD

<table>
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<td>B₀</td>
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<td>Depth</td>
<td>K₀</td>
<td>1.1 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>8 ± 0.1</td>
</tr>
<tr>
<td>Distance Between Centerlines</td>
<td>Cavity to Perforation (length)</td>
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</tr>
<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
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<td>5.5 ± 0.1</td>
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<td>Width</td>
<td>C</td>
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5 x 6 PQFN-32LD

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<tr>
<td></td>
<td>Width</td>
<td>B₀</td>
<td>6.3 ± 0.1</td>
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<tr>
<td></td>
<td>Depth</td>
<td>K₀</td>
<td>1.2 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
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6 x 7 PQFN-37LD

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<td>Width</td>
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<td></td>
<td>Depth</td>
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<td>Pitch</td>
<td>P₁</td>
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</tr>
<tr>
<td>Carrier Tape</td>
<td>Width</td>
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# Tape and Reel Packaging for Surface Mount Components

## 7 mm LGA-16LD

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</tr>
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<td></td>
<td>Width</td>
<td>$B_0$</td>
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<td></td>
<td>Depth</td>
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</tr>
<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
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<td>7.5 ± 0.1</td>
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<tr>
<td><strong>Cover Tape</strong></td>
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<td>$C$</td>
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## 8 mm BGA

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<td>Depth</td>
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<td>Pitch</td>
<td>$P_1$</td>
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<tr>
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<td>Cavity to Perforation (length)</td>
<td>$P_2$</td>
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<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
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<td>7.5 ± 0.1</td>
</tr>
<tr>
<td><strong>Cover Tape</strong></td>
<td>Width</td>
<td>$C$</td>
<td>13.3 ± 0.1</td>
</tr>
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<td><strong>Carrier Tape</strong></td>
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## 15 mm BGA

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<td></td>
<td>Width</td>
<td>$B_0$</td>
<td>15.3 ± 0.1</td>
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<tr>
<td></td>
<td>Depth</td>
<td>$K_0$</td>
<td>3.8 ± 0.1</td>
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<tr>
<td></td>
<td>Pitch</td>
<td>$P_1$</td>
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<td>Cavity to Perforation (length)</td>
<td>$P_2$</td>
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<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
<td>$F$</td>
<td>11.5 ± 0.1</td>
</tr>
<tr>
<td><strong>Cover Tape</strong></td>
<td>Width</td>
<td>$C$</td>
<td>21 ± 0.1</td>
</tr>
<tr>
<td><strong>Carrier Tape</strong></td>
<td>Width</td>
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</tbody>
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### BD-1

<table>
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<tr>
<td>Width</td>
<td>B₀</td>
<td>0.82 ± 0.05</td>
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<tr>
<td>Depth</td>
<td>K₀</td>
<td>0.395 ± 0.05</td>
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<td>P₁</td>
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<tr>
<td>Pocket Hole Diameter</td>
<td>D₁</td>
<td>0.35 ± 0.05</td>
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<tr>
<td><strong>Distance Between Centerlines</strong></td>
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</tr>
<tr>
<td>Cavity to Perforation (length)</td>
<td>P₂</td>
<td>2 ± 0.05</td>
<td></td>
</tr>
<tr>
<td>Cavity to Perforation (width)</td>
<td>F</td>
<td>3.5 ± 0.05</td>
<td></td>
</tr>
<tr>
<td><strong>Cover Tape</strong></td>
<td>Width</td>
<td>C</td>
<td>5.3 ± 0.1</td>
</tr>
<tr>
<td><strong>Carrier Tape</strong></td>
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### BD-2

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</tr>
<tr>
<td>Width</td>
<td>B₀</td>
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<tr>
<td>Depth</td>
<td>K₀</td>
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<tr>
<td>Pitch</td>
<td>P₁</td>
<td>4 ± 0.1</td>
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<tr>
<td>Pocket Hole Diameter</td>
<td>D₁</td>
<td>0.5 ± 0.05</td>
<td></td>
</tr>
<tr>
<td><strong>Distance Between Centerlines</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Cavity to Perforation (length)</td>
<td>P₂</td>
<td>2 ± 0.05</td>
<td></td>
</tr>
<tr>
<td>Cavity to Perforation (width)</td>
<td>F</td>
<td>3.5 ± 0.05</td>
<td></td>
</tr>
<tr>
<td><strong>Cover Tape</strong></td>
<td>Width</td>
<td>C</td>
<td>5.3 ± 0.1</td>
</tr>
<tr>
<td><strong>Carrier Tape</strong></td>
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<td>W</td>
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### BD-3

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<td>B₀</td>
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<tr>
<td>Depth</td>
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<tr>
<td>Pitch</td>
<td>P₁</td>
<td>4 ± 0.1</td>
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<td>Pocket Hole Diameter</td>
<td>D₁</td>
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<tr>
<td><strong>Distance Between Centerlines</strong></td>
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<tr>
<td>Cavity to Perforation (length)</td>
<td>P₂</td>
<td>2 ± 0.05</td>
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</tr>
<tr>
<td>Cavity to Perforation (width)</td>
<td>F</td>
<td>3.5 ± 0.05</td>
<td></td>
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<tr>
<td><strong>Cover Tape</strong></td>
<td>Width</td>
<td>C</td>
<td>5.3 ± 0.1</td>
</tr>
<tr>
<td><strong>Carrier Tape</strong></td>
<td>Width</td>
<td>W</td>
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</table>
## Tape and Reel Packaging for Surface Mount Components

### CR-5

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<td>P₂</td>
<td>2 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
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<td>11.5 ± 0.1</td>
</tr>
<tr>
<td><strong>Cover Tape</strong></td>
<td>Width</td>
<td>C</td>
<td>21 ± 0.1</td>
</tr>
<tr>
<td><strong>Carrier Tape</strong></td>
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### LCC1

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<tr>
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<td>Cavity to Perforation (width)</td>
<td>F</td>
<td>11.5</td>
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### LSM1

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<td></td>
<td>Cavity to Perforation (width)</td>
<td>F</td>
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<tr>
<td><strong>Carrier Tape</strong></td>
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Tape and Reel Packaging for Surface Mount Components

### LSM2

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### LSM3

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<td>2 ± 0.1</td>
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<tr>
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<tr>
<td></td>
<td>Pitch</td>
<td>$P_1$</td>
<td>24</td>
</tr>
<tr>
<td>Distance Between Centerlines</td>
<td>Cavity to Perforation (length)</td>
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<td>2 ± 0.1</td>
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<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
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<tr>
<td>Carrier Tape</td>
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### MSOP-8, MSOP-8EP, MSOP-10

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<td>A₀</td>
<td>5.3 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Width</td>
<td>B₀</td>
<td>3.4 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>K₀</td>
<td>1.4 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>8 ± 0.1</td>
</tr>
<tr>
<td>Distance Between Centerlines</td>
<td>Cavity to Perforation (length)</td>
<td>P₂</td>
<td>2 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
<td>F</td>
<td>5.5 ± 0.1</td>
</tr>
<tr>
<td>Cover Tape</td>
<td>Width</td>
<td>C</td>
<td>9.2 ± 0.1</td>
</tr>
<tr>
<td>Carrier Tape</td>
<td>Width</td>
<td>W</td>
<td>12 ± 0.3</td>
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### ODS-120

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<td>1.42 - 1.79</td>
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<td>Width</td>
<td>B₀</td>
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<td>Depth</td>
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<td>Pitch</td>
<td>P₁</td>
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<td>Cavity to Perforation (length)</td>
<td>P₂</td>
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<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
<td>F</td>
<td>3.5 ± 0.05</td>
</tr>
<tr>
<td>Cover Tape</td>
<td>Width</td>
<td>C</td>
<td>5.4 ± 0.1</td>
</tr>
<tr>
<td>Carrier Tape</td>
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### ODS-186

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<td>B₀</td>
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<td>Depth</td>
<td>K₀</td>
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<td>Pitch</td>
<td>P₁</td>
<td>12 ± 0.1</td>
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<tr>
<td>Distance Between Centerlines</td>
<td>Cavity to Perforation (length)</td>
<td>P₂</td>
<td>2 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
<td>F</td>
<td>7.5 ± 0.1</td>
</tr>
<tr>
<td>Cover Tape</td>
<td>Width</td>
<td>C</td>
<td>13.3 ± 0.1</td>
</tr>
<tr>
<td>Carrier Tape</td>
<td>Width</td>
<td>W</td>
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### ODS-1056

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<tbody>
<tr>
<td><strong>Cavity</strong></td>
<td>Length</td>
<td>( A_0 )</td>
<td>2 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Width</td>
<td>( B_0 )</td>
<td>2 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>( K_0 )</td>
<td>1.19 ± 0.1</td>
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<tr>
<td></td>
<td>Pitch</td>
<td>( P_1 )</td>
<td>4 ± 0.1</td>
</tr>
<tr>
<td><strong>Distance Between Centerlines</strong></td>
<td>Cavity to Perforation (length)</td>
<td>( P_2 )</td>
<td>2 ± 0.05</td>
</tr>
<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
<td>( F )</td>
<td>3.5 ± 0.05</td>
</tr>
<tr>
<td><strong>Cover Tape</strong></td>
<td>Width</td>
<td>( C )</td>
<td>5.4 ± 0.1</td>
</tr>
<tr>
<td><strong>Carrier Tape</strong></td>
<td>Width</td>
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<td>8 +0.3/-0.1</td>
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### ODS-1072

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<td><strong>Cavity</strong></td>
<td>Length</td>
<td>( A_0 )</td>
<td>2.54 ± 0.1</td>
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<tr>
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<td>Width</td>
<td>( B_0 )</td>
<td>3.56 ± 0.1</td>
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<td>Depth</td>
<td>( K_0 )</td>
<td>2.54 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>( P_1 )</td>
<td>4 ± 0.1</td>
</tr>
<tr>
<td><strong>Distance Between Centerlines</strong></td>
<td>Cavity to Perforation (length)</td>
<td>( P_2 )</td>
<td>2 ± 0.05</td>
</tr>
<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
<td>( F )</td>
<td>5.5 ± 0.05</td>
</tr>
<tr>
<td><strong>Cover Tape</strong></td>
<td>Width</td>
<td>( C )</td>
<td>9.3 ± 0.1</td>
</tr>
<tr>
<td><strong>Carrier Tape</strong></td>
<td>Width</td>
<td>( W )</td>
<td>12 ± 0.3</td>
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### ODS-1079

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<th>Description</th>
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<th>Size (mm)</th>
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</thead>
<tbody>
<tr>
<td><strong>Cavity</strong></td>
<td>Length</td>
<td>( A_0 )</td>
<td>3.2 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Width</td>
<td>( B_0 )</td>
<td>3.2 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>( K_0 )</td>
<td>3.12 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>( P_1 )</td>
<td>8 ± 0.1</td>
</tr>
<tr>
<td><strong>Distance Between Centerlines</strong></td>
<td>Cavity to Perforation (length)</td>
<td>( P_2 )</td>
<td>2 ± 0.05</td>
</tr>
<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
<td>( F )</td>
<td>5.5 ± 0.05</td>
</tr>
<tr>
<td><strong>Cover Tape</strong></td>
<td>Width</td>
<td>( C )</td>
<td>9.3 ± 0.1</td>
</tr>
<tr>
<td><strong>Carrier Tape</strong></td>
<td>Width</td>
<td>( W )</td>
<td>12 ± 0.3</td>
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</tbody>
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### ODS-1091

<table>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Cavity</strong></td>
<td>Length</td>
<td>A₀</td>
<td>4.19 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Width</td>
<td>B₀</td>
<td>5.38 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>K₀</td>
<td>4.06 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>8 ± 0.1</td>
</tr>
<tr>
<td><strong>Distance Between Centerlines</strong></td>
<td>Cavity to Perforation (length)</td>
<td>P₂</td>
<td>2 ± 0.05</td>
</tr>
<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
<td>F</td>
<td>5.5 ± 0.05</td>
</tr>
<tr>
<td><strong>Cover Tape</strong></td>
<td>Width</td>
<td>C</td>
<td>9.3 ± 0.1</td>
</tr>
<tr>
<td><strong>Carrier Tape</strong></td>
<td>Width</td>
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### ODS-1294,1295,1306

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<th>Symbol</th>
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<td>Length</td>
<td>A₀</td>
<td>0.64 ± 0.05</td>
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<td>Width</td>
<td>B₀</td>
<td>1.12 ± 0.05</td>
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<tr>
<td></td>
<td>Depth</td>
<td>K₀</td>
<td>0.3 ± 0.05</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>4 ± 0.1</td>
</tr>
<tr>
<td><strong>Distance Between Centerlines</strong></td>
<td>Cavity to Perforation (length)</td>
<td>P₂</td>
<td>2.0 ± 0.05</td>
</tr>
<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
<td>F</td>
<td>3.5 ± 0.05</td>
</tr>
<tr>
<td><strong>Cover Tape</strong></td>
<td>Width</td>
<td>C</td>
<td>5.4 ± 0.1</td>
</tr>
<tr>
<td><strong>Carrier Tape</strong></td>
<td>Width</td>
<td>W</td>
<td>8.0 +0.30/-0.1</td>
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### ODS-1305,1269

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<th>Symbol</th>
<th>Size (mm)</th>
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<tbody>
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<td>Length</td>
<td>A₀</td>
<td>0.46 ± 0.03</td>
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<tr>
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<td>Width</td>
<td>B₀</td>
<td>0.79 ± 0.03</td>
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<tr>
<td></td>
<td>Depth</td>
<td>K₀</td>
<td>0.28 ± 0.03</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>4 ± 0.1</td>
</tr>
<tr>
<td><strong>Distance Between Centerlines</strong></td>
<td>Cavity to Perforation (length)</td>
<td>P₂</td>
<td>2 ± 0.05</td>
</tr>
<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
<td>F</td>
<td>3.5 ± 0.05</td>
</tr>
<tr>
<td><strong>Cover Tape</strong></td>
<td>Width</td>
<td>C</td>
<td>5.4 ± 0.1</td>
</tr>
<tr>
<td><strong>Carrier Tape</strong></td>
<td>Width</td>
<td>W</td>
<td>8 +0.3/-0.1</td>
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</table>
## Tape and Reel Packaging for Surface Mount Components

### ODS-1402, 1411, 1500

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<th>Description</th>
<th>Symbol</th>
<th>Size (mm)</th>
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<tbody>
<tr>
<td>Cavity</td>
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<td>A₀</td>
<td>0.47 ± 0.03</td>
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<td>Width</td>
<td>B₀</td>
<td>0.84 ± 0.03</td>
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<td>Depth</td>
<td>K₀</td>
<td>0.31 ± 0.03</td>
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<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>4 ± 0.1</td>
</tr>
<tr>
<td>Distance Between Centerlines</td>
<td>Cavity to Perforation (length)</td>
<td>P₂</td>
<td>2 ± 0.05</td>
</tr>
<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
<td>F</td>
<td>3.5 ± 0.05</td>
</tr>
<tr>
<td>Cover Tape</td>
<td>Width</td>
<td>C</td>
<td>5.4 ± 0.1</td>
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<tr>
<td>Carrier Tape</td>
<td>Width</td>
<td>W</td>
<td>8 ± 0.3/0.1</td>
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### QSOP-16, QSOP-16EP

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<td>6.8 ± 0.1</td>
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<td>Width</td>
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<td>Depth</td>
<td>K₀</td>
<td>1.6 ± 0.1</td>
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<td>Pitch</td>
<td>P₁</td>
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<td>Distance Between Centerlines</td>
<td>Cavity to Perforation (length)</td>
<td>P₂</td>
<td>2 ± 0.1</td>
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<tr>
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<td>Cavity to Perforation (width)</td>
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<td>7.5 ± 0.1</td>
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<tr>
<td>Cover Tape</td>
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<tr>
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### QSOP-24

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<td>Width</td>
<td>B₀</td>
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<td>Depth</td>
<td>K₀</td>
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<td>Pitch</td>
<td>P₁</td>
<td>8 ± 0.1</td>
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<tr>
<td>Distance Between Centerlines</td>
<td>Cavity to Perforation (length)</td>
<td>P₂</td>
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<tr>
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<td>Cavity to Perforation (width)</td>
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<td>7.5 ± 0.1</td>
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<tr>
<td>Cover Tape</td>
<td>Width</td>
<td>C</td>
<td>13.3 ± 0.1</td>
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<tr>
<td>Carrier Tape</td>
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### Tape and Reel Packaging for Surface Mount Components

#### QSOP-28

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<tr>
<td>Length</td>
<td>A₀</td>
<td>6.5 ± 0.1</td>
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<tr>
<td>Width</td>
<td>B₀</td>
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<td>Depth</td>
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<tr>
<td>Pitch</td>
<td>P₁</td>
<td>8 ± 0.1</td>
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<tr>
<td>Distance Between Centerlines</td>
<td>Cavity to Perforation (length)</td>
<td>P₂</td>
<td>2 ± 0.1</td>
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<tr>
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<td>Cavity to Perforation (width)</td>
<td>F</td>
<td>7.5 ± 0.1</td>
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<tr>
<td>Cover Tape</td>
<td>Width</td>
<td>C</td>
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<tr>
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#### R-1, R-4, R-5, R-15

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<td>Width</td>
<td>B₀</td>
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<td>Depth</td>
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#### SC70-3LD, SC70-6LD

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</tr>
<tr>
<td>Depth</td>
<td>K₀</td>
<td>1.2 ± 0.1</td>
<td></td>
</tr>
<tr>
<td>Pitch</td>
<td>P₁</td>
<td>4 ± 0.1</td>
<td></td>
</tr>
<tr>
<td>Distance Between Centerlines</td>
<td>Cavity to Perforation (length)</td>
<td>P₂</td>
<td>2 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
<td>F</td>
<td>3.5 ± 0.1</td>
</tr>
<tr>
<td>Cover Tape</td>
<td>Width</td>
<td>C</td>
<td>5.4 ± 0.1</td>
</tr>
<tr>
<td>Carrier Tape</td>
<td>Width</td>
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</table>
## Tape and Reel Packaging for Surface Mount Components

### SC-79

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<td></td>
<td>Width</td>
<td>B₀</td>
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<td>Depth</td>
<td>K₀</td>
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<td>Pitch</td>
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<tr>
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<td>Cavity to Perforation (length)</td>
<td>P₂</td>
<td>2 ± 0.05</td>
</tr>
<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
<td>F</td>
<td>3.5 ± 0.05</td>
</tr>
<tr>
<td><strong>Cover Tape</strong></td>
<td>Width</td>
<td>C</td>
<td>5.4 ± 0.1</td>
</tr>
<tr>
<td><strong>Carrier Tape</strong></td>
<td>Width</td>
<td>W</td>
<td>8 +0.3/-0.1</td>
</tr>
</tbody>
</table>

### SM-1, SM-23, SM-69, SM-87, SM-89, SM-134

<table>
<thead>
<tr>
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<th>Description</th>
<th>Symbol</th>
<th>Size (mm)</th>
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<tbody>
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</tr>
<tr>
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<td>B₀</td>
<td>8.5 ± 0.1</td>
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<tr>
<td></td>
<td>Depth</td>
<td>K₀</td>
<td>5.3 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>12 ± 0.1</td>
</tr>
<tr>
<td><strong>Carrier Tape</strong></td>
<td>Width</td>
<td>W</td>
<td>16 ± 0.3</td>
</tr>
</tbody>
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### SM-2, SM-4, SM-74, SM-108

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<th>Size (mm)</th>
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<td>10.26 ± 0.1</td>
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<td>Width</td>
<td>B₀</td>
<td>13.46 ± 0.1</td>
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<td></td>
<td>Depth</td>
<td>K₀</td>
<td>6.1 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>12 ± 0.1</td>
</tr>
<tr>
<td><strong>Carrier Tape</strong></td>
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### SM-3

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<td>20.5 ± 0.1</td>
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<td>Width</td>
<td>B₀</td>
<td>20.5 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>K₀</td>
<td>5.3 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>24 ± 0.1</td>
</tr>
<tr>
<td>Carrier Tape</td>
<td>Width</td>
<td>W</td>
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### SM-7-1

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<td>Width</td>
<td>B₀</td>
<td>21.4 ± 0.1</td>
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<td>Depth</td>
<td>K₀</td>
<td>5.6 ± 0.1</td>
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<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>24 ± 0.1</td>
</tr>
<tr>
<td>Carrier Tape</td>
<td>Width</td>
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### SM-20

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<td>8.1 ± 0.1</td>
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<tr>
<td></td>
<td>Width</td>
<td>B₀</td>
<td>15.4 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>K₀</td>
<td>7.1 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>12 ± 0.1</td>
</tr>
<tr>
<td>Carrier Tape</td>
<td>Width</td>
<td>W</td>
<td>24 ± 0.3</td>
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### SM-22

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<td>Width</td>
<td>$B_0$</td>
<td>$5 \pm 0.1$</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>$K_0$</td>
<td>$2.8 \pm 0.1$</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>$P_1$</td>
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<tr>
<td><strong>Carrier Tape</strong></td>
<td>Width</td>
<td>$W$</td>
<td>$12 \pm 0.3$</td>
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### SM-24

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<tbody>
<tr>
<td><strong>Cavity</strong></td>
<td>Length</td>
<td>$A_0$</td>
<td>$10.5 \pm 0.1$</td>
</tr>
<tr>
<td></td>
<td>Width</td>
<td>$B_0$</td>
<td>$8.28 \pm 0.1$</td>
</tr>
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<td></td>
<td>Depth</td>
<td>$K_0$</td>
<td>$5.5 \pm 0.1$</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>$P_1$</td>
<td>$16 \pm 0.1$</td>
</tr>
<tr>
<td><strong>Carrier Tape</strong></td>
<td>Width</td>
<td>$W$</td>
<td>$24 \pm 0.3$</td>
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### SM-26

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<td>Length</td>
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<td>$12.1 \pm 0.1$</td>
</tr>
<tr>
<td></td>
<td>Width</td>
<td>$B_0$</td>
<td>$19.8 \pm 0.1$</td>
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<tr>
<td></td>
<td>Depth</td>
<td>$K_0$</td>
<td>$5.5 \pm 0.1$</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>$P_1$</td>
<td>$16 \pm 0.1$</td>
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<tr>
<td><strong>Carrier Tape</strong></td>
<td>Width</td>
<td>$W$</td>
<td>$32 \pm 0.3$</td>
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### SM-28

<table>
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<tr>
<td><strong>Cavity</strong></td>
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<td>$12.1 \pm 0.1$</td>
</tr>
<tr>
<td></td>
<td>Width</td>
<td>$B_0$</td>
<td>$21.1 \pm 0.1$</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>$K_0$</td>
<td>$6.5 \pm 0.1$</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>$P_1$</td>
<td>$24 \pm 0.1$</td>
</tr>
<tr>
<td><strong>Carrier Tape</strong></td>
<td>Width</td>
<td>$W$</td>
<td>$32 \pm 0.3$</td>
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## SM-41

<table>
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<tbody>
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<td>Cavity</td>
<td>Length</td>
<td>A₀</td>
<td>6.9 ± 0.1</td>
</tr>
<tr>
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<td>Width</td>
<td>B₀</td>
<td>8.4 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>K₀</td>
<td>7.4 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>12 ± 0.1</td>
</tr>
<tr>
<td>Carrier Tape</td>
<td>Width</td>
<td>W</td>
<td>24 ± 0.3</td>
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## SM-44, SM-68

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<td>Length</td>
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<td>7.5 ± 0.1</td>
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<tr>
<td></td>
<td>Width</td>
<td>B₀</td>
<td>8.4 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>K₀</td>
<td>5.5 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>12 ± 0.1</td>
</tr>
<tr>
<td>Carrier Tape</td>
<td>Width</td>
<td>W</td>
<td>16 ± 0.3</td>
</tr>
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## SM-46

<table>
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<tbody>
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<td>Length</td>
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<td>20.9 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Width</td>
<td>B₀</td>
<td>11.4 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>K₀</td>
<td>6.8 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
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</tr>
<tr>
<td>Carrier Tape</td>
<td>Width</td>
<td>W</td>
<td>32 ± 0.3</td>
</tr>
</tbody>
</table>

## SM-52

<table>
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<th>Symbol</th>
<th>Size (mm)</th>
</tr>
</thead>
<tbody>
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<td>Cavity</td>
<td>Length</td>
<td>A₀</td>
<td>5.6 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Width</td>
<td>B₀</td>
<td>5.6 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>K₀</td>
<td>3 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>8 ± 0.1</td>
</tr>
<tr>
<td>Carrier Tape</td>
<td>Width</td>
<td>W</td>
<td>12 ± 0.3</td>
</tr>
</tbody>
</table>
## SM-55

<table>
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<th>Symbol</th>
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<tbody>
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<td>6.8 ± 0.1</td>
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<td>Width</td>
<td>B₀</td>
<td>7.6 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>K₀</td>
<td>3.5 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>12 ± 0.1</td>
</tr>
<tr>
<td>Carrier Tape</td>
<td>Width</td>
<td>W</td>
<td>16 ± 0.3</td>
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## SM-106

<table>
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<td>10.7 ± 0.1</td>
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<td>Width</td>
<td>B₀</td>
<td>20.8 ± 0.1</td>
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<tr>
<td></td>
<td>Depth</td>
<td>K₀</td>
<td>6 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>24 ± 0.1</td>
</tr>
<tr>
<td>Carrier Tape</td>
<td>Width</td>
<td>W</td>
<td>32 ± 0.3</td>
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## SOD-323

<table>
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<th>Symbol</th>
<th>Size (mm)</th>
</tr>
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<tbody>
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<td>A₀</td>
<td>1.46 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Width</td>
<td>B₀</td>
<td>2.9 ± 0.05</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>K₀</td>
<td>1.25 ± 0.05</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>4 ± 0.1</td>
</tr>
<tr>
<td>Distance Between Centerlines</td>
<td>Cavity to Perforation (length)</td>
<td>P₂</td>
<td>2 ± 0.05</td>
</tr>
<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
<td>F</td>
<td>3.5 ± 0.05</td>
</tr>
<tr>
<td>Cover Tape</td>
<td>Width</td>
<td>C</td>
<td>5.4 ± 0.1</td>
</tr>
<tr>
<td>Carrier Tape</td>
<td>Width</td>
<td>W</td>
<td>8 ± 0.3/-0.1</td>
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</table>
# Tape and Reel Packaging for Surface Mount Components

## SOIC-8 (SO-8)

<table>
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<td>Length</td>
<td>$A_0$</td>
<td>6.4 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Width</td>
<td>$B_0$</td>
<td>5.2 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>$K_0$</td>
<td>2.1 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>$P_1$</td>
<td>8 ± 0.1</td>
</tr>
<tr>
<td><strong>Distance Between Centerlines</strong></td>
<td>Cavity to Perforation (length)</td>
<td>$P_2$</td>
<td>2 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
<td>$F$</td>
<td>5.5 ± 0.1</td>
</tr>
<tr>
<td><strong>Cover Tape</strong></td>
<td>Width</td>
<td>$C$</td>
<td>9.2 ± 0.1</td>
</tr>
<tr>
<td><strong>Carrier Tape</strong></td>
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## SOIC-14 (SO-14), SSOP-24

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<td>Length</td>
<td>$A_0$</td>
<td>6.5 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Width</td>
<td>$B_0$</td>
<td>9 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
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<td>2.1 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>$P_1$</td>
<td>8 ± 0.1</td>
</tr>
<tr>
<td><strong>Distance Between Centerlines</strong></td>
<td>Cavity to Perforation (length)</td>
<td>$P_2$</td>
<td>2 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
<td>$F$</td>
<td>7.5 ± 0.1</td>
</tr>
<tr>
<td><strong>Cover Tape</strong></td>
<td>Width</td>
<td>$C$</td>
<td>13.3 ± 0.1</td>
</tr>
<tr>
<td><strong>Carrier Tape</strong></td>
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## SOIC-16 (SO-16), SSOP-28

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<td>Length</td>
<td>$A_0$</td>
<td>6.5 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Width</td>
<td>$B_0$</td>
<td>10.3 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>$K_0$</td>
<td>2.1 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>$P_1$</td>
<td>8 ± 0.1</td>
</tr>
<tr>
<td><strong>Distance Between Centerlines</strong></td>
<td>Cavity to Perforation (length)</td>
<td>$P_2$</td>
<td>2 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
<td>$F$</td>
<td>7.5 ± 0.1</td>
</tr>
<tr>
<td><strong>Cover Tape</strong></td>
<td>Width</td>
<td>$C$</td>
<td>13.3 ± 0.1</td>
</tr>
<tr>
<td><strong>Carrier Tape</strong></td>
<td>Width</td>
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<td>16 ± 0.3</td>
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</table>
## Tape and Reel Packaging for Surface Mount Components

### SOT-23

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<th>Symbol</th>
<th>Size (mm)</th>
</tr>
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<td>3.125 ± 0.125</td>
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<tr>
<td></td>
<td>Width</td>
<td>B₀</td>
<td>2.835 ± 0.165</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>K₀</td>
<td>1.23 ± 0.11</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>4 ± 0.1</td>
</tr>
<tr>
<td>Distance Between Centerlines</td>
<td>Cavity to Perforation (length)</td>
<td>P₂</td>
<td>2 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
<td>F</td>
<td>3.5 ± 0.1</td>
</tr>
<tr>
<td>Cover Tape</td>
<td>Width</td>
<td>C</td>
<td>5.4 ± 0.1</td>
</tr>
<tr>
<td>Carrier Tape</td>
<td>Width</td>
<td>W</td>
<td>8 ± 0.3</td>
</tr>
</tbody>
</table>

### SOT-25, SOT-26

<table>
<thead>
<tr>
<th>Tape Dimensions</th>
<th>Description</th>
<th>Symbol</th>
<th>Size (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cavity</td>
<td>Length</td>
<td>A₀</td>
<td>3.2 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Width</td>
<td>B₀</td>
<td>3.2 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>K₀</td>
<td>1.4 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>4 ± 0.1</td>
</tr>
<tr>
<td>Distance Between Centerlines</td>
<td>Cavity to Perforation (length)</td>
<td>P₂</td>
<td>2 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
<td>F</td>
<td>3.5 ± 0.1</td>
</tr>
<tr>
<td>Cover Tape</td>
<td>Width</td>
<td>C</td>
<td>5.4 ± 0.1</td>
</tr>
<tr>
<td>Carrier Tape</td>
<td>Width</td>
<td>W</td>
<td>8 ± 0.3</td>
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### SOT-89

<table>
<thead>
<tr>
<th>Tape Dimensions</th>
<th>Description</th>
<th>Symbol</th>
<th>Size (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cavity</td>
<td>Length</td>
<td>A₀</td>
<td>4.6 ± 0.1</td>
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<tr>
<td></td>
<td>Width</td>
<td>B₀</td>
<td>4.78 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>K₀</td>
<td>1.9 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>8 ± 0.1</td>
</tr>
<tr>
<td>Distance Between Centerlines</td>
<td>Cavity to Perforation (length)</td>
<td>P₂</td>
<td>2 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
<td>F</td>
<td>5.5 ± 0.5</td>
</tr>
<tr>
<td>Cover Tape</td>
<td>Width</td>
<td>C</td>
<td>9.3 ± 0.1</td>
</tr>
<tr>
<td>Carrier Tape</td>
<td>Width</td>
<td>W</td>
<td>12 ± 0.2</td>
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# Tape and Reel Packaging for Surface Mount Components

## SOT-143

<table>
<thead>
<tr>
<th>Tape Dimensions</th>
<th>Description</th>
<th>Symbol</th>
<th>Size (mm)</th>
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<tbody>
<tr>
<td>Cavity</td>
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<td>3.1 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Width</td>
<td>B₀</td>
<td>2.69 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>K₀</td>
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</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>4 ± 0.1</td>
</tr>
<tr>
<td>Distance Between Centerlines</td>
<td>Cavity to Perforation (length)</td>
<td>P₂</td>
<td>2 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
<td>F</td>
<td>3.5 ± 0.1</td>
</tr>
<tr>
<td>Cover Tape</td>
<td>Width</td>
<td>C</td>
<td>5.4 ± 0.1</td>
</tr>
<tr>
<td>Carrier Tape</td>
<td>Width</td>
<td>W</td>
<td>8 ± 0.3</td>
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## SOW-16 (SOIC-16 Wide Body)

<table>
<thead>
<tr>
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<th>Symbol</th>
<th>Size (mm)</th>
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</thead>
<tbody>
<tr>
<td>Cavity</td>
<td>Length</td>
<td>A₀</td>
<td>10.9 ± 0.1</td>
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<tr>
<td></td>
<td>Width</td>
<td>B₀</td>
<td>10.7 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>K₀</td>
<td>3 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>12 ± 0.1</td>
</tr>
<tr>
<td>Distance Between Centerlines</td>
<td>Cavity to Perforation (length)</td>
<td>P₂</td>
<td>2 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
<td>F</td>
<td>7.5 ± 0.1</td>
</tr>
<tr>
<td>Cover Tape</td>
<td>Width</td>
<td>C</td>
<td>13.3 ± 0.1</td>
</tr>
<tr>
<td>Carrier Tape</td>
<td>Width</td>
<td>W</td>
<td>16 ± 0.3</td>
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## SOW-24 (SOIC-24 Wide Body)

<table>
<thead>
<tr>
<th>Tape Dimensions</th>
<th>Description</th>
<th>Symbol</th>
<th>Size (mm)</th>
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</thead>
<tbody>
<tr>
<td>Cavity</td>
<td>Length</td>
<td>A₀</td>
<td>10.7 ± 0.2</td>
</tr>
<tr>
<td></td>
<td>Width</td>
<td>B₀</td>
<td>15.8 ± 0.2</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>K₀</td>
<td>3 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>12 ± 0.1</td>
</tr>
<tr>
<td>Distance Between Centerlines</td>
<td>Cavity to Perforation (length)</td>
<td>P₂</td>
<td>2 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
<td>F</td>
<td>11.5 ± 0.1</td>
</tr>
<tr>
<td>Cover Tape</td>
<td>Width</td>
<td>C</td>
<td>20</td>
</tr>
<tr>
<td>Carrier Tape</td>
<td>Width</td>
<td>W</td>
<td>24 ± 0.3</td>
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</table>
## Tape and Reel Packaging for Surface Mount Components

### SSOP-8

<table>
<thead>
<tr>
<th>Tape Dimensions</th>
<th>Description</th>
<th>Symbol</th>
<th>Size (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cavity</strong></td>
<td>Length</td>
<td>A₀</td>
<td>3.4 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Width</td>
<td>B₀</td>
<td>8.3 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>K₀</td>
<td>2.54 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>8</td>
</tr>
<tr>
<td><strong>Distance Between Centerlines</strong></td>
<td>Cavity to Perforation (length)</td>
<td>P₂</td>
<td>2 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
<td>F</td>
<td>7.5 ± 0.1</td>
</tr>
<tr>
<td><strong>Cover Tape</strong></td>
<td>Width</td>
<td>C</td>
<td>13.3 ± 0.1</td>
</tr>
<tr>
<td><strong>Carrier Tape</strong></td>
<td>Width</td>
<td>W</td>
<td>16 ± 0.3</td>
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### SSOP-20

<table>
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<th>Description</th>
<th>Symbol</th>
<th>Size (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cavity</strong></td>
<td>Length</td>
<td>A₀</td>
<td>8.2 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Width</td>
<td>B₀</td>
<td>7.5 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>K₀</td>
<td>2.5 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>12 ± 0.1</td>
</tr>
<tr>
<td><strong>Distance Between Centerlines</strong></td>
<td>Cavity to Perforation (length)</td>
<td>P₂</td>
<td>2 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
<td>F</td>
<td>7.5 ± 0.1</td>
</tr>
<tr>
<td><strong>Cover Tape</strong></td>
<td>Width</td>
<td>C</td>
<td>13.3 ± 0.1</td>
</tr>
<tr>
<td><strong>Carrier Tape</strong></td>
<td>Width</td>
<td>W</td>
<td>16 ± 0.3</td>
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</tbody>
</table>

### TSSOP-16, TSSOP-16EP

<table>
<thead>
<tr>
<th>Tape Dimensions</th>
<th>Description</th>
<th>Symbol</th>
<th>Size (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cavity</strong></td>
<td>Length</td>
<td>A₀</td>
<td>6.95 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Width</td>
<td>B₀</td>
<td>5.6 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>K₀</td>
<td>1.6 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Pitch</td>
<td>P₁</td>
<td>8 ± 0.1</td>
</tr>
<tr>
<td><strong>Distance Between Centerlines</strong></td>
<td>Cavity to Perforation (length)</td>
<td>P₂</td>
<td>2 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>Cavity to Perforation (width)</td>
<td>F</td>
<td>7.5 ± 0.1</td>
</tr>
<tr>
<td><strong>Cover Tape</strong></td>
<td>Width</td>
<td>C</td>
<td>13.3 ± 0.1</td>
</tr>
<tr>
<td><strong>Carrier Tape</strong></td>
<td>Width</td>
<td>W</td>
<td>16 ± 0.3</td>
</tr>
</tbody>
</table>

---

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4.0 Component Orientation for Tape and Reel

1 mm X1DFN-6LD

2 x 2.5 mm STQFN-14LD

1.2 x 1.5 mm TDFN-6LD (0.5 mm Lead Pitch)

3 mm PQFN-12LD,
3 mm PQFN-16LD

1.5 x 1.2 mm TDFN-6LD (0.4 mm Lead Pitch)

3 mm PQFN-12LD (1.1 mm Height)

2 mm PDFN-8LD,
2 mm STDFN-8LD,
2 mm STQFN-12LD

4 mm PQFN-16LD,
4 mm PQFN-20LD,
4 mm PQFN-24LD
Tape and Reel Packaging for Surface Mount Components

4 x 6 mm PQFN-32LD

6 x 7 mm PQFN-37LD

4 x 7 mm PQFN-36LD

7 mm LGA-16LD

5 mm PQFN-20LD,
5 mm PQFN-28LD,
5 mm PQFN-32LD

8 mm BGA

5 x 6 mm PQFN-32LD

15 mm BGA
Tape and Reel Packaging for Surface Mount Components

**BD-1**, Bumped Die, 0.705 mm Sq. (bumps facing down)

**BD-2**, Bumped Die, 0.925 x 1.095 mm (bumps facing down)

**BD-3**, Bumped Die, 0.485 x 0.605 mm (bumps facing down)

**CR-5**

(Mوخان CARRIER TAPE R2412-AM1088)

9.02(4c), 9.91(8c), 2.03(6c), 12(8c), 24(8c)

**LCC1**

**LSM1, LSM6**

**RT3**

**TRS**

User Direction of Feed

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For further information and support please visit:
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Tape and Reel Packaging for Surface Mount Components

MSOP-8, -10
(ADVANTEK CARRIER TAPE MNS08-AC102.P2R)
5.3(A0), 3.4(B0), 1.4(K0), 8(P1), 12(W)

ODS-1294, 1295 & 1306

QSOP-16, QSOP-16EP, TSSOP-16
(ADVANTEK CARRIER TAPE TSS016-AC95.OP2)
6.8(A0), 5.4(B0), 1.6(K0), 1.3(K1), 8(P1), 16(W)

QSOP-24, SOIC-14
(ADVANTEK CARRIER TAPE SOIC14-CC92.OP2)
6.5(A0), 9(B0), 2.1(K0), 8(P1), 16(W)
Tape and Reel Packaging for Surface Mount Components

QSOP-28, SOIC-16

SM-1, SM-23, SM-41, SM-69, SM-87, SM-89, SM-134

User Direction of Feed

R-1, R-4, R-15

SM-2, SM-4, SM-44, SM-68, SM-74, SM-108

User Direction of Feed

SC70-3LD, SC70-6LD

SM-3, SM-26

User Direction of Feed

SC-79, SOD-323

SM-7-1, SM-28, SM-55

User Direction of Feed

Visit www.macom.com for additional data sheets and product information.
Tape and Reel Packaging for Surface Mount Components

SM-20

User Direction of Feed

SM-52

User Direction of Feed

SM-22

User Direction of Feed

SM-106

User Direction of Feed

SM-24

User Direction of Feed

SOIC-8

User Direction of Feed

SM-46

User Direction of Feed

SOT-23

User Direction of Feed
Tape and Reel Packaging for Surface Mount Components

SOT-25, SOT-26

(C-PAK CARRIER: TAPE 11ST0009)'

3.2(A0), 3.2(B0), 1.4(K0), 4(P1), 8(W)

SOW-24 (SOIC-24 Wide Body)

User Direction of Feed

SOT-89

Direction of Feed

SSOP-8

(ADVANTEK CARRIER: TAPE SSOP08-CC78.0P2)

3.4(A0), 8.3(B0), 2.54(K0), 1.91(K1), 8(P1), 16(W)

SOT-143

(ADVANTEK CARRIER: TAPE SOT-143-AV1000.P1)

3.2(A0), 2.7(B0), 1.35(K0), 4(P1), 8(W)

SSOP-20

(ADVANTEK CARRIER: TAPE SSOP20-CC79.2P2)

8.2(A0), 7.5(B0), 2.5(K0), 2.3(K1), 12(P1), 16(W)

SOW-16 (SOIC-16 Wide Body)

User Direction of Feed

SSOP-24

User Direction of Feed
## 5.0 Reel Information

<table>
<thead>
<tr>
<th>Package Type</th>
<th>Max. Devices per Reel</th>
<th>Reel Diameter (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mm X1DFN-6LD, 2 mm STDFN-8LD, 2 mm STQFN-12LD, 2 x 2.5 mm STQFN-14LD</td>
<td>3000</td>
<td>7</td>
</tr>
<tr>
<td>1.2 x 1.5 mm TDFN-6LD (0.5 mm pitch), 1.5 x 1.2 mm TDFN-6LD (0.4 mm pitch)</td>
<td>3000</td>
<td>7</td>
</tr>
<tr>
<td>2 mm PDFN-8LD</td>
<td>3000</td>
<td>13</td>
</tr>
<tr>
<td>3 mm PQFN-12LD, 3 mm PQFN-12LD (1.1 mm height), 3 mm PQFN-16LD, 4 mm PQFN-16LD, 4 mm PQFN-20LD, 4 mm PQFN-24LD</td>
<td>1000</td>
<td>7</td>
</tr>
<tr>
<td>4 x 6 mm PQFN-32LD, 4 x 7 mm PQFN-36LD</td>
<td>1000</td>
<td>7</td>
</tr>
<tr>
<td>5 mm PQFN-20LD, 5 mm PQFN-28LD, 5 mm PQFN-32LD</td>
<td>1000</td>
<td>7</td>
</tr>
<tr>
<td>5 x 6 mm PQFN-36LD</td>
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<td>7</td>
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<td>6 x 7 mm PQFN-37LD</td>
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<tr>
<td>7 mm LGA-16LD</td>
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<td>8 mm BGA, 15 mm BGA</td>
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<td>BD-1, BD-2, BD-3</td>
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<td>CR-5</td>
<td>2500</td>
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<td>LCC1, LSM1, LSM2, LSM3</td>
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<td>13</td>
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<td>MSOP8, MSOP-8EP, MSOP-10</td>
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<td>ODS-120</td>
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<td>ODS-186</td>
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<td>ODS-1056</td>
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<td>ODS-1079</td>
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<td>ODS-1091</td>
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<td>ODS-1269, 1294, 1295, 1305, 1306, 1402, 1411, 1500</td>
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### 5.0 Reel Information (continued)\(^3,4\)

<table>
<thead>
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<th>Package Type</th>
<th>Max. Devices per Reel</th>
<th>Reel Diameter (inches)</th>
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</thead>
<tbody>
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<td>QSOP-16, QSOP-16EP, QSOP-24, QSOP-28</td>
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<td>R-1, R-4, R-5, R-15</td>
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<td>SC70-3LD, SC70-6LD, SC-79, SOT-23,</td>
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<td>SOT-25, SOT-26, SOT-89, SOT-143, SOD-323</td>
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<td>SM-1, SM-55, SM-69</td>
<td>900</td>
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<tr>
<td>SM-2, SM-4, SM-7-1, SM-20, SM-23, SM-24, SM-41, SM-44</td>
<td>500</td>
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<td>SM-3, SM-26, SM-28, SM-46, LSM6</td>
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<td>SM-22</td>
<td>2000</td>
<td>13</td>
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<tr>
<td>SM-52</td>
<td>2500</td>
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<tr>
<td>SM-87, SM-89, SM-134</td>
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<td>2000 (E-Series)</td>
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<td>SOIC 14 (SO-14), SOIC 16 (SO-16)</td>
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<td>3000</td>
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<td>SOW-16 (SOIC-16 Wide Body), SOW-24 (SOIC-24 Wide Body)</td>
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<tr>
<td>TSSOP-16, TSSOP-16EP</td>
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<tr>
<td></td>
<td>2500</td>
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</table>

3. See individual data sheets for part number ordering information.
4. Most device in tape and reel must be ordered in multiples of 100 pieces, with a minimum order quantity of either 200 or 500 pieces per part number. Consult factory for individual package types.
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