Reliability Qualification

Amkor package qualification uses three independent production lots and a minimum of 77 units per test group. All testing includes JSTD-020 moisture preconditioning.

- Moisture sensitivity characterization: JEDEC level 3, 85°C/85% RH, 168 hours
- uHAST: 130°C/85% RH, no bias, 96 hours
- Temp cycle: -65°C/+150°C, 500 cycles
- High temp storage: 150°C, 1000 hours

Services and Support

Amkor has a broad base of resources available to help customers bring quality products to market quickly and at the lowest possible cost.

- Full package characterization
- Thermal, mechanical stress and electrical performance modeling
- Turnkey assembly, test and drop-ship
- World-class reliability testing and failure analysis

Test Services

- Program generation/conversion
- Wafer probe
- Burn-in capabilities
- -55°C to +165°C test available
- Strip test available

Shipping Options

- Aluminum canister
- Tape and reel
- Dry pack
- Drop-ship

SOT-23/TSOT

SOT-23 (Small Outline Transistor) and TSOT (Thin Small Outline Transistor Package) are leadframe based, plastic encapsulated packages that are well suited for applications requiring very small footprints. These industry standard packages run in very high volume and provide a cost-effective solution for a wide range of applications. Having up to 8 leads, these packages can handle small ICs that may have previously been placed in SOIC or TSSOP packages.
SOT-23/TSOT

Cross Sections
Die Up

Die Down

Configuration Options
SOT-23/TSOT Nominal Package Dimensions (mm)

<table>
<thead>
<tr>
<th>Package Type</th>
<th>Lead Count</th>
<th>Body Width</th>
<th>Body Length</th>
<th>Body Thickness</th>
<th>Overall Height</th>
<th>Lead Pitch</th>
<th>Tip-to-Tip</th>
<th>JEDEC/EIAJ</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOT-23</td>
<td>3</td>
<td>1.3</td>
<td>2.9</td>
<td>0.90</td>
<td>0.98</td>
<td>0.95/1.9</td>
<td>2.40</td>
<td>SOT346/TO-236/SC-59</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>1.3</td>
<td>2.9</td>
<td>0.90</td>
<td>0.98</td>
<td>1.92</td>
<td>2.40</td>
<td>SOT143/TO-253</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.6</td>
<td>2.9</td>
<td>1.15</td>
<td>1.23</td>
<td>0.95/1.9</td>
<td>2.80</td>
<td>MO-178</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>1.6</td>
<td>2.9</td>
<td>1.15</td>
<td>1.23</td>
<td>0.95</td>
<td>2.80</td>
<td>MO-178</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>1.6</td>
<td>2.9</td>
<td>1.15</td>
<td>1.23</td>
<td>0.65</td>
<td>2.80</td>
<td>MO-178</td>
</tr>
<tr>
<td>TSOT*</td>
<td>3</td>
<td>1.6</td>
<td>2.9</td>
<td>0.88</td>
<td>0.96</td>
<td>0.95/1.9</td>
<td>2.75</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.6</td>
<td>2.9</td>
<td>0.88</td>
<td>0.96</td>
<td>0.95</td>
<td>2.75</td>
<td>MO-193</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>1.6</td>
<td>2.9</td>
<td>0.88</td>
<td>0.96</td>
<td>0.95</td>
<td>2.75</td>
<td>MO-193</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>1.6</td>
<td>2.9</td>
<td>0.88</td>
<td>0.96</td>
<td>0.65</td>
<td>2.75</td>
<td>MO-193</td>
</tr>
</tbody>
</table>

*TSOT may also be referenced as a TSOP

Visit amkor.com or email sales@amkor.com for more information.