## Device Material Content

**Assembly:** ASEM  
**Size (mm):** 14 x 14  
**Lead pitch (mm):** 0.8  
**MSL:** 3  
**Reflow max (ºC):** 260

### Package: 256 caBGA

<table>
<thead>
<tr>
<th>Package Code:</th>
<th>CT256</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Device Weight:</strong></td>
<td>0.425 Grams</td>
</tr>
<tr>
<td><strong>CT40HX:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>ICE40HX:</strong></td>
<td></td>
</tr>
</tbody>
</table>

### Products:

#### Die:
- **Die**
- **Silicon chip**: 7440-21-3  
- **% of Total Pkg. Wt.:** 0.88%  
- **Weight (g):** 0.0037  
- **% of Total Pkg. Wt.:** 0.88%  
- **Weight (g):** 0.0037  
- **Substance:** Silicon chip  
- **CAS #:** 7440-21-3  
- **% of Subst.:** 100.00%  
- **Notes / Assumptions:** Die size: 2.69 x 2.41 mm

#### Mold Compound:
- **53.69%**  
- **3.99%**  
- **3.37%**  
- **0.31%**  

#### D/A Tape:
- **0.04%**  
- **0.0002**  

#### Wire:
- **0.37%**  
- **0.0016**  

#### Solder Balls:
- **16.50%**  
- **0.0701**  

#### Substrate:
- **20.84%**  
- **0.0886**

### Notes:

- **Die:** Die: FH-900T-25_HR9004  
- **Mold Compound:** Kyocera KE-Gr1250LKDS  
- **Notes:**  
  - Die size: 2.69 x 2.41 mm  
  - Mold Compound: Kyocera KE-Gr1250LKDS  
  - Die attach: FH-900T-25_HR9004  
  - 0.7 mil diameter; 1 wire per solder ball  
  - SAC305  
  - BT Resin CCL-HL832NX-A  
  - Max. concentration of Bisphenol A (CAS# 80-05-7) in substrate laminate material as impurity - not intentionally added.

### Constituent Substances and Proportions

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS #</th>
<th>% of Subst.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silicon chip</td>
<td>7440-21-3</td>
<td>100.00%</td>
</tr>
<tr>
<td>Silica</td>
<td>60676-86-0</td>
<td>87.50%</td>
</tr>
<tr>
<td>Epoxy resin</td>
<td>25038-59-9</td>
<td>12.00%</td>
</tr>
<tr>
<td>Epoxy Resin</td>
<td>7440-50-8</td>
<td>98.00%</td>
</tr>
<tr>
<td>Palladium</td>
<td>7440-50-8</td>
<td>2.00%</td>
</tr>
<tr>
<td>Tin (Sn)</td>
<td>7440-31-5</td>
<td>96.50%</td>
</tr>
<tr>
<td>Silver (Ag)</td>
<td>7440-22-4</td>
<td>3.00%</td>
</tr>
<tr>
<td>Copper (Cu)</td>
<td>7440-50-8</td>
<td>0.50%</td>
</tr>
</tbody>
</table>

- **Notes:** The values listed above are nominal values based on studies of representatives of this particular package type, and are believed to be as accurate as possible. Constituent substances and proportions in epoxy materials are before curing.

- **Website:** www.latticesemi.com

- **Rev. E**