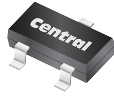
Material Composition Specification

SOT-363 Case



Device average mass . . . . 5.9 mg

Fluctuation margin . . . . +/-10%

<table>
<tr><th rowspan="2">Component</th><th rowspan="2">Material</th><th colspan="2">Material</th><th rowspan="2">Substance</th><th rowspan="2">CAS No.</th><th colspan="3">Substance</th></tr>
<tr><th>(%wt)</th><th>(mg)</th><th>(%wt)</th><th>(mg)</th><th>(ppm)</th></tr>
<tr><td>active device</td><td>doped Si</td><td>3.38%</td><td>0.2</td><td>Si</td><td>7440-21-3</td><td>3.38%</td><td>0.2</td><td>33,841</td></tr>
<tr><td>bond wire</td><td>gold</td><td>0.68%</td><td>0.04</td><td>Au</td><td>7440-57-5</td><td>0.68%</td><td>0.04</td><td>6,768</td></tr>
<tr><td rowspan="3">leadframe</td><td rowspan="3">alloy 42
w/ silver plating</td><td rowspan="3">33%</td><td rowspan="3">1.95</td><td>Fe</td><td>7439-89-6</td><td>19.12%</td><td>1.13</td><td>191,201</td></tr>
<tr><td>Ni</td><td>7440-02-0</td><td>13.2%</td><td>0.78</td><td>131,980</td></tr>
<tr><td>Ag</td><td>7440-22-4</td><td>0.68%</td><td>0.04</td><td>6,768</td></tr>
<tr><td rowspan="10">encapsulation*</td><td rowspan="5">EMC</td><td rowspan="5">58.21%</td><td rowspan="5">3.44</td><td>silica</td><td>7631-86-9</td><td>41.96%</td><td>2.48</td><td>419,628</td></tr>
<tr><td>epoxy resin</td><td>Proprietary</td><td>14.55%</td><td>0.86</td><td>145,516</td></tr>
<tr><td>Sb_2O_3</td><td>1309-64-4</td><td>1.18%</td><td>0.07</td><td>11,844</td></tr>
<tr><td>TBBA</td><td>79-94-7</td><td>0.34%</td><td>0.02</td><td>3,384</td></tr>
<tr><td>carbon</td><td>1333-86-4</td><td>0.17%</td><td>0.01</td><td>1,692</td></tr>
<tr><td rowspan="5">EMC GREEN</td><td rowspan="5">58.21%</td><td rowspan="5">3.44</td><td>silica</td><td>60676-86-0</td><td>38.9%</td><td>2.299</td><td>389,048</td></tr>
<tr><td>epoxy resin</td><td>29690-82-2</td><td>8.84%</td><td>0.522</td><td>88,365</td></tr>
<tr><td>phenol resin</td><td>9003-35-4</td><td>4.43%</td><td>0.262</td><td>44,333</td></tr>
<tr><td>carbon black</td><td>1333-86-4</td><td>0.3%</td><td>0.018</td><td>3,016</td></tr>
<tr><td>metal hydroxide</td><td>1309-42-8</td><td>5.73%</td><td>0.339</td><td>57,302</td></tr>
<tr><td rowspan="3">plating**</td><td rowspan="2">tin/lead process</td><td rowspan="2">4.74%</td><td rowspan="2">0.28</td><td>Sn</td><td>7440-31-5</td><td>3.98%</td><td>0.23</td><td>39,763</td></tr>
<tr><td>Pb</td><td>7439-92-1</td><td>0.76%</td><td>0.04</td><td>7,614</td></tr>
<tr><td>matte tin</td><td>4.74 %</td><td>0.28</td><td>Sn</td><td>7440-31-5</td><td>4.74%</td><td>0.28</td><td>47,377</td></tr>
</table>

*EMC GREEN molding compound is Halogen-Free.
**For Lead Free plating, add suffix “PB FREE” to part number.
For Tin/Lead plating, add suffix “TIN/LEAD” to part number.
No suffix designation allows for the supply of either lead-free or tin/lead plated product depending on availability.

Disclaimer
The information provided in this Material Composition data sheet is, to the best of our knowledge, correct. However, there is no guarantee to completeness or accuracy, as some information is derived from data sources outside the company.

R7 (16-July 2018)