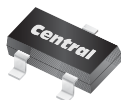
# Material Composition Specification
## SOT-523W Case




**Device average mass . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2.3 mg**
**Fluctuation margin . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . +/-10%**

| Component | Material | Material | | Substance | CAS No. | Substance | | |
|---|---|---|---|---|---|---|---|---|
| | | (%wt) | (mg) | | | (%wt) | (mg) | (ppm) |
| active device | doped Si | 3.02% | 0.07 | Si | 7440-21-3 | 3.02% | 0.07 | 30,172 |
| bond wire | gold | 0.56% | 0.013 | Au | 7440-57-5 | 0.56% | 0.013 | 5,603 |
| leadframe | alloy 42 w/ copper & silver plating | 31.55% | 0.732 | Fe | 7439-89-6 | 16.16% | 0.375 | 161,638 |
| | | | | Ni | 7440-02-0 | 12.50% | 0.29 | 125,000 |
| | | | | Cu | 7440-50-8 | 2.59% | 0.06 | 25,862 |
| | | | | Ag | 7440-22-4 | 0.30% | 0.007 | 3,017 |
| encapsulation* | EMC GREEN | 60.34% | 1.4 | silica (fused) | 60676-86-0 | 40.22% | 0.933 | 402,155 |
| | | | | epoxy resin | 29690-82-2 | 6.94% | 0.161 | 69,397 |
| | | | | phenol resin | 9003-35-4 | 6.94% | 0.161 | 69,397 |
| | | | | carbon black | 1333-86-4 | 0.22% | 0.005 | 2,155 |
| | | | | metal hydroxide | 1309-42-8 | 6.03% | 0.14 | 60,345 |
| plating | 100% matte tin | 4.53% | 0.105 | Sn | 7440-31-5 | 4.53% | 0.105 | 45,259 |

*EMC GREEN molding compound is Halogen-Free.

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.