

Material Composition Specification

TO-3 Case



Device average mass 11.7 g
 Fluctuation margin +/-10%

| Component | Material | Material | | Substance | CAS No. | Substance | | |
|------------------|-------------------------|----------|-------|--------------------------------|------------|-----------|-------|---------|
| | | (%wt) | (mg) | | | (%wt) | (mg) | (ppm) |
| active device | doped Si | 0.043% | 5.0 | Si | 7440-21-3 | 0.043% | 5.0 | 426 |
| bond wire | aluminum | 0.019% | 2.2 | Al | 7429-90-5 | 0.019% | 2.2 | 187 |
| die attach | high temperature solder | 0.037% | 4.28 | Pb | 7439-92-1 | 0.034% | 3.98 | 339 |
| | | | | Sn | 7440-31-5 | 0.002% | 0.2 | 17 |
| | | | | Ag | 7440-22-4 | 0.001% | 0.1 | 9 |
| die coating* | silicone | 4.9% | 575 | Al ₂ O ₃ | 1344-28-1 | 3.56% | 418 | 35,570 |
| | | | | poly-methylsiloxane | 63148-62-9 | 1.34% | 157 | 13,392 |
| header | nickel plated iron | 66.2% | 7,745 | Fe | 7439-89-6 | 65.54% | 7,668 | 655,385 |
| | | | | Ni | 7440-02-0 | 0.62% | 72 | 6,154 |
| | | | | P | 7723-14-0 | 0.05% | 5.4 | 462 |
| can | nickel plated iron | 21.79% | 2,550 | Fe | 7439-89-6 | 21.57% | 2,524 | 215,726 |
| | | | | Ni | 7440-02-0 | 0.2% | 23.7 | 2,026 |
| | | | | P | 7723-14-0 | 0.02% | 1.8 | 154 |
| terminal plating | 100% tin solder | 7.36% | 864 | Sn | 7440-31-5 | 7.36% | 864 | 73,591 |

*Die coating is not used on devices with a V_{CEO} of less than 150 volts.

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.