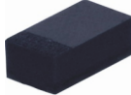


MATERIAL DATA SHEET

| | | |
|--------------|--|---|
| Material # | CPDER series(0503) (Halogen Free) |  |
| Product Line | Discrete Devices | |
| Date | 2014/1/27 | |
| Rev. date | H | |

COMPONENT DETAILS

| No. | Construction element | Material group | Material weight (mg) | Material | CAS if applicable | Average mass (%) | Sum(%) | Traces |
|--------------|----------------------|------------------------|----------------------|---------------------------------|-------------------|------------------|--------|--------|
| 1 | FR-4 Board | Substrate/ Terminal | 0.231 | Copper | 7440-50-8 | 58.86% | 16.27 | |
| | | | | Nickel | 7440-02-0 | 3.12% | | |
| | | | | Gold | 7440-57-5 | 0.09% | | |
| | | | | Continuous Filament Fiber Glass | 65997-17-3 | 37.93% | | |
| 2 | Wafer | Diode | 0.029 | Silicon | 7440-21-3 | 97.95% | 2.04 | |
| | | | | Aluminum | 7429-90-5 | 2.00% | | |
| | | | | Titanium | 7440-32-6 | 0.00% | | |
| | | | | Silver | 7440-57-5 | 0.00% | | |
| | | | | SiO2 | 14808-60-7 | 0.05% | | |
| 3 | Al wire | Conductor | 0.001 | Aluminium | 7429-90-5 | >99% | 0.07 | |
| | | | | Silicon | 7440-21-3 | <1% | | |
| 4 | Silver paste | Welding | 0.006 | Modified Epoxy Resin | 29690-82-2 | 5~25% | 0.42 | |
| | | | | Silver | 7440-22-4 | 76~85% | | |
| | | | | Imidazole | 827-43-0 | 1~4% | | |
| | | | | Amide | 461-58-5 | 1~4% | | |
| 5 | Molding Compound | Outer | 1.153 | Silica | 60676-86-0 | 70~90% | 81.20 | |
| | | | | Epoxy Resin | 29690-82-2 | 6~16% | | |
| | | | | Phenolic Resin | 9003-35-4 | 5~15% | | |
| | | | | Carbon Black | 1333-86-4 | 0.1~1% | | |
| Total weight | | | 1.42 | | | | | |