



Apex Microtechnology

Materials Substance Report

Model: PA198

Print Time: 10/13/2025

RoHS Compliant: Yes

Lead Free: No

Bonding Island Substances

Total Weight (g)

NONE

N/A

Capacitor Substances

Total Weight (g)

Barium Titanate

2.99E-2

Bismuth Titanate

1.76E-3

Calcium Zirconate

1.76E-3

Manganese Oxide

1.76E-3

Nickel

3.52E-4

Palladium

3.30E-4

Silica

1.76E-3

Silver

6.27E-3

Tin

8.80E-5

Die Substances

Total Weight (g)

Aluminum

5.22E-5

Epoxy

1.03E-4

Gold

6.60E-5

Nickel

2.54E-5

Silicon

1.18E-2

Silver

1.78E-3

Tin

4.59E-3

Titanium

1.03E-6

Encapsulant Substances

Total Weight (g)

NONE

N/A

Frame Substances

Total Weight (g)

Epoxy

3.20E-2

Glass

9.20E-2

Polymeric Resin

2.16E-1



Apex Microtechnology

Materials Substance Report

Model: PA198

Print Time: 10/13/2025

Header Substances

	Total Weight (g)
Carbon	6.62E-3
Iron	6.58E+0
Manganese	2.72E-2
Nickel	5.78E-2
Phosphorous	2.65E-3
Sulfur	3.31E-3

Lead Frame Substances

	Total Weight (g)
NONE	N/A

Lid Substances

	Total Weight (g)
Glass	1.54E-1
Polymeric Resin	3.60E-1

Pin Substances

	Total Weight (g)
Copper	6.02E-1
Nickel	5.76E-3
Phosphorous	1.27E-3
Silver	3.49E-3
Tin	1.45E-1

Silicone Substances

	Total Weight (g)
Silicone	4.00E-1

Solder Substances

	Total Weight (g)
Silver	6.83E-3
Tin	1.88E-1

Substrate Substances

	Total Weight (g)
Beryllium Oxide	1.33E+0



Apex Microtechnology

Materials Substance Report

Model: PA198

Print Time: 10/13/2025

Thickfilm Substances

Cadmium Oxide
Glass
Gold
Lead Oxide
Silver

Total Weight (g)

1.78E-4
2.63E-2
5.57E-3
4.21E-4
4.69E-2

Wire Substances

Aluminum

Total Weight (g)

1.36E-4



Apex Microtechnology

Materials Substance Report

Model: PA198

Print Time: 10/13/2025

Substances Present in This Model

Substance	Total Weight (g)
Aluminum	1.88E-4
Barium Titanate	2.99E-2
Beryllium Oxide	1.33E+0
Bismuth Titanate	1.76E-3
Cadmium Oxide	1.78E-4
Calcium Zirconate	1.76E-3
Carbon	6.62E-3
Copper	6.02E-1
Epoxy	3.21E-2
Glass	2.73E-1
Gold	5.63E-3
Iron	6.58E+0
Lead Oxide	4.21E-4
Manganese	2.72E-2
Manganese Oxide	1.76E-3
Nickel	6.39E-2
Palladium	3.30E-4
Phosphorous	3.92E-3
Polymeric Resin	5.76E-1
Silica	1.76E-3
Silicon	1.18E-2
Silicone	4.00E-1
Silver	6.53E-2
Sulfur	3.31E-3
Tin	3.38E-1
Titanium	1.03E-6

Sum of All Substances Present in This Model (g) 1.04E+1