

Plastic BGA Substrate

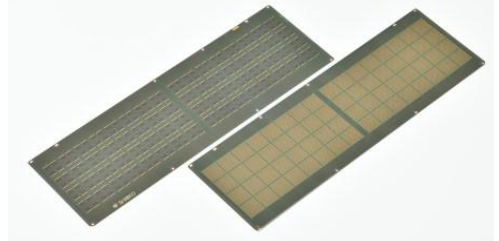
Features

■ Plastic BGA Substrate

SHINKO provides organic substrates using prepreg for BGA packages in logic, memory, and sensor devices, etc.

- 2 Layers / 4 Layers Substrate with Through Hole
 - Substrate with low cost and high reliability
 - Superior electrical characteristics
- Build-up Substrate ~IVH*~
 - Thinner substrate thickness is available by using thin core.
(ex. less than 150μm total thickness with 4 layers)
 - Multilayer structure consisting of 4 or more layers is possible.
 - Available for both WB (Wire Bonding) and FC (Flip-Chip)
 - High density is possible by using semi-additive process and laser vias.
 - Structure of via on PTH (Plated Through Hole) and structure of stacked via are supported.

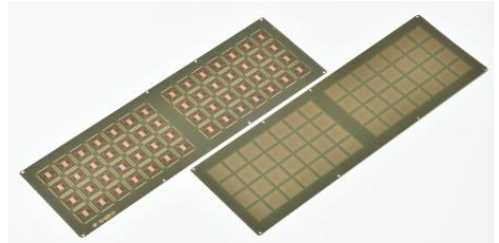
*IVH : Interstitial Via Hole



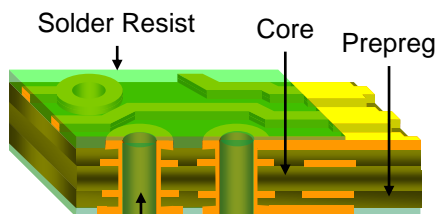
■ Plastic BGA Coreless Substrate ~IVH3~

SHINKO provides coreless substrate using IVH technology for improving performance in a thinner form factor.

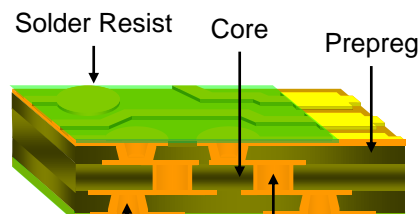
- Ultimate substrate thickness reduction is possible by removing core layer.
(ex. 70μm or less total thickness with 3 layers)
(ex. 85μm or less total thickness with 4 layers)
- Superior electrical characteristics
- Multilayer structure consisting of 3 or more layers is possible.
- Available for both WB (Wire Bonding) and FC (Flip-Chip) interconnect
- High density is possible by using semi-additive process and laser vias.
- Structure of stacked via is supported.



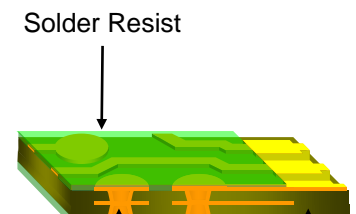
Structure



Through Hole (Drill)
4 Layers Substrate with Through Hole



Through Hole (Drill/Laser: Cu Filled hole is possible.)
4 Layers IVH



All layer with Prepreg
3 Layers IVH3

