FBGA

Signetics

Description

Fine Pitch Ball Grid Array (FBGA) is a scaled-down version of the standard BGA package for markets requiring miniaturization, such as mobile products, laptop computers.

Reduced ball pitches and a physical outline make FBGAs ideal for packaging devices. FBGA features a standard BT substrate and fine solder ball pitch, available in 0.5mm ~ 0.8mm ball sizes.

Also FBGAs offer a variety of benefits such as low costs, small sizes and weights, high operating speeds, etc.

FBGA can apply devices like as processors, networking, and hand held consumer products.

Package Sizes	3.0 x 3.0mm - 21x21mm
I/O Counts	18 – 600

Features

- Overall package height max. 1.4mm to 0.65mm
- Eutectic / Pb free solder balls
- Solder ball pitch 0.4mm to 1.0mm
- Green package available
- 2-4 layer substrates
- Fine pitch ball grid array package .
- Near chip scale package
- Available in Land Grid Array (LGA) format
- JEDEC standard compliant

Applications

- Digital TVs, DSPs, PLDs
- High-Density memory devices.
- Wireless RF
- ASICs

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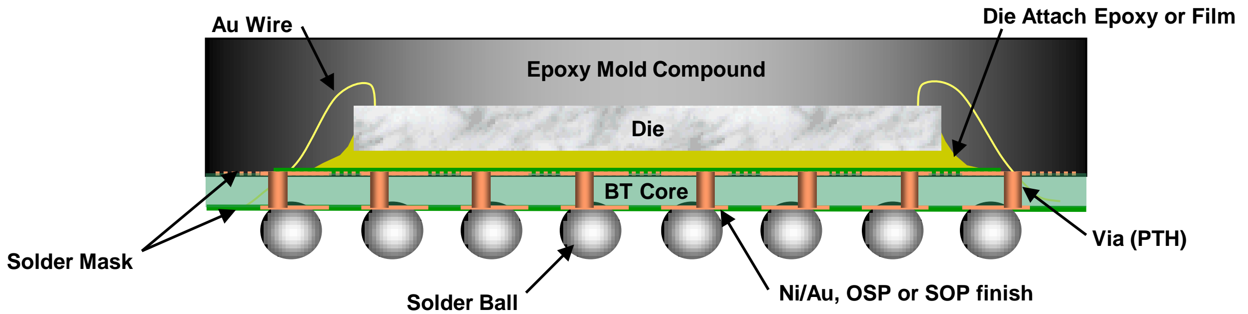
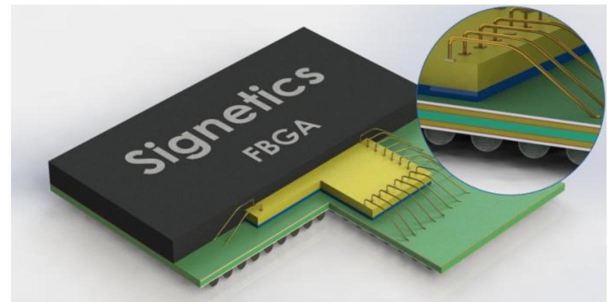


Reliability

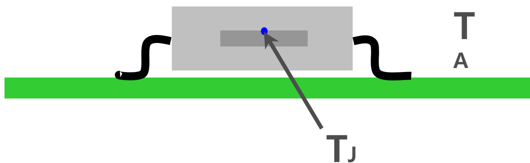
MSL Level	JEDEC Level 3
Temp Cycling	150°C/-65°C, 1000 cycles
Unbiased HAST	130’’C/85%, 2atm, 96hrs
High Temp Storage	150°C, 1000hrs



Thermal Data

BODY SIZE	Ball Count	Theta JA (°c/w)
12X12mm	144B	27.68
15X15mm	484B	18.82

- JEDEC STD 2S2P PCB, Still air

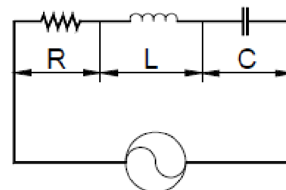


Electrical Data

- 21X21mm Body, 400B
- Simulation Frequency : 125MHz

Resistance (mΩ)	120~500
Inductance (nH)	2.35~14.15
Capacitance (pF)	0.25~1.53

- Results dependent on body size, die size, and Substrate design etc..



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