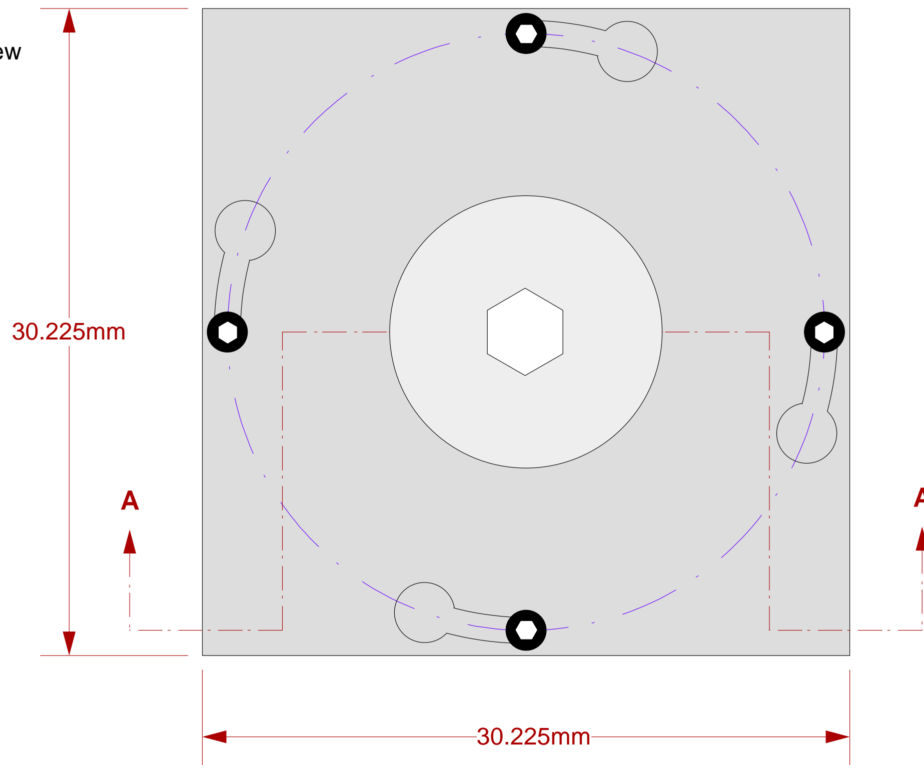
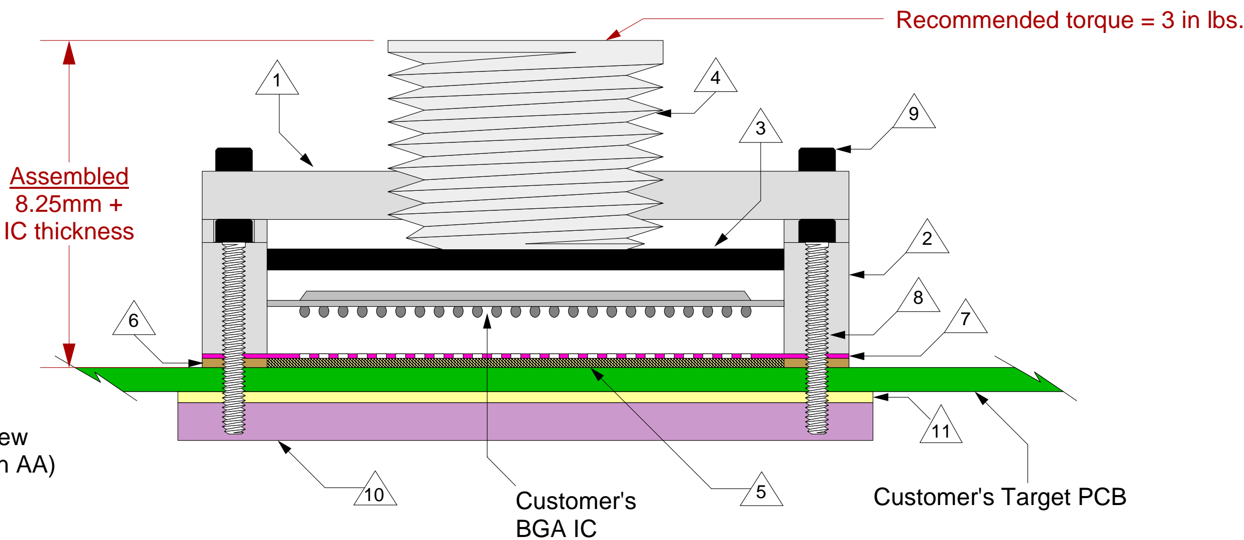
GHz BGA Socket - Direct mount, solderless

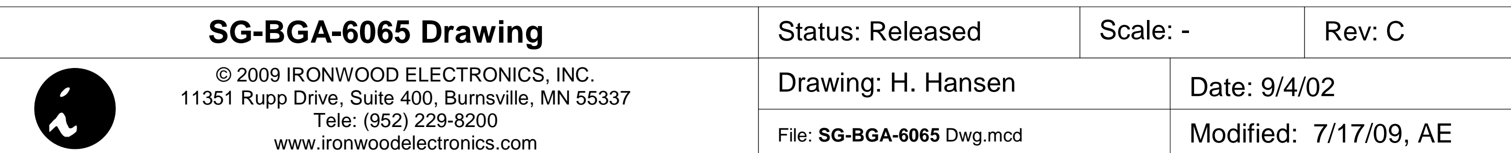


Features

- Directly mounts to target PCB (needs tooling holes) with hardware.
- High speed, reliable Elastomer connection
- Minimum real estate required
- Compression plate distributes forces evenly
- Ball guide prevents over compression of elastomer
- Easily removable swivel socket lid



#	Description
1	Socket Lid: Black anodized Aluminum. Thickness = 2.5mm.
2	Socket base: Black anodized Aluminum. Thickness = 5mm.
3	Compression Plate: Black anodized Aluminum. Thickness = 2.5mm.
4	Compression screw: Black anodized Aluminum. Thickness = 5mm, Hex socket = 5mm.
5	Elastomer: 40 micron dia gold plated brass filaments arranged symmetrically in a silicone rubber (63.5 degree angle). Thickness = 0.75mm.
6	Elastomer Guide: Non-clad FR4. Thickness = 0.75mm.
7	Ball Guide: Kapton polyimide.
8	Socket base screw: Socket head cap, alloy steel with black oxide finish, 0-80 fine thread , 12.7mm long.
9	Socket lid screw: Shoulder screw, 18-8 SS, 0-80 fine thread.
10	Insulation Plate: FR4/G10, 1.59mm thick.
11	Backing Plate: Anodized Aluminum 6.35mm thick.



SG-BGA-6065 Drawing	Status: Released	Scale: -	Rev: C
© 2009 IRONWOOD ELECTRONICS, INC. 11351 Rupp Drive, Suite 400, Burnsville, MN 55337 Tele: (952) 229-8200 www.ironwoodelectronics.com	Drawing: H. Hansen	Date: 9/4/02	
	File: **SG-BGA-6065** Dwg.mcd	Modified: 7/17/09, AE	

All tolerances: ±0.125mm (unless stated otherwise). Materials and specifications are subject to change without notice.

Recommended PCB Layout
Top View

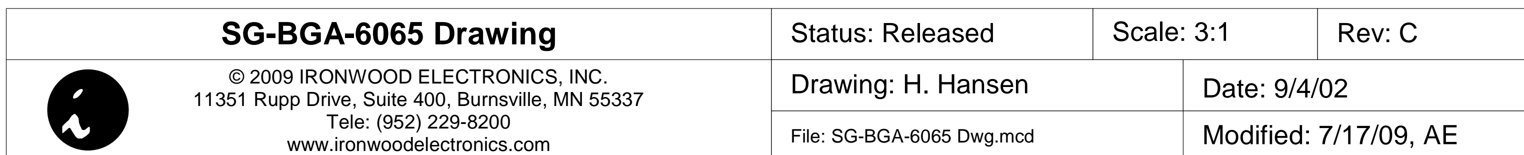
***Note: BGA pattern is not symmetrical with respect to the mounting holes.**

1.25mm±0.13mm (x4)
Orientation Mark
2.808mm
1.27mm typ.
1.25mm±0.13mm (x4)
2.433mm
2.54mm
Ø 0.850mm±0.025mm (x2)
Non Plated Alignment Hole
Ø 0.51mm PAD
30.225mm±0.125mm (x4)
Socket size
Ø 1.61mm±0.05mm (x4)
Non Plated Mounting Hole
5.080mm
27.725mm (x4)
32.725mm±0.125mm (x4)
Socket Base

Target PCB Recommendations
Total thickness: 1.6mm min.
Plating: Gold or Solder finish
PCB Pad height: Same or higher than solder mask

NOTE: Steel backing plate may be required based on end user's application

Recommended PCB Layout Tolerances: ±0.025mm [±0.001"] unless stated otherwise.



SG-BGA-6065 Drawing	Status: Released	Scale: 3:1	Rev: C
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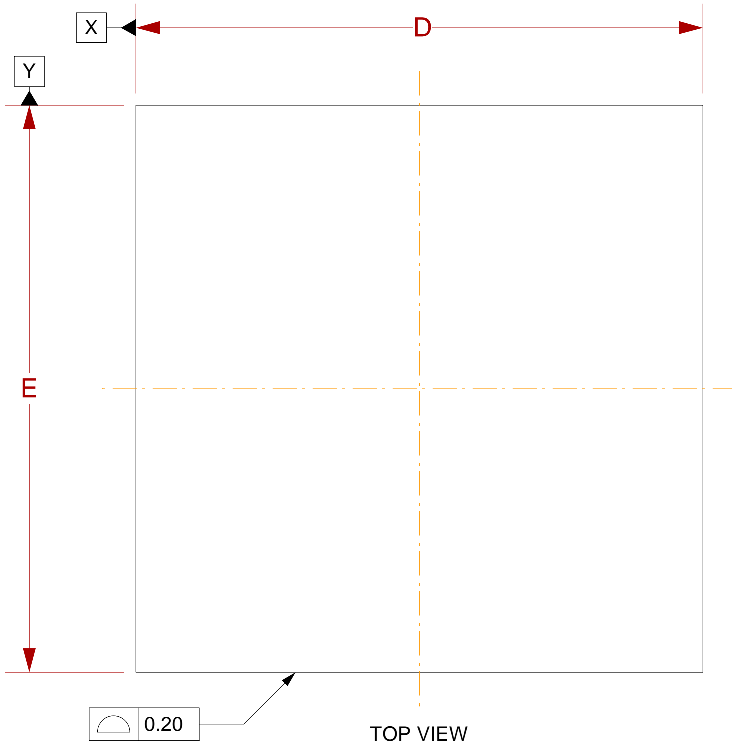
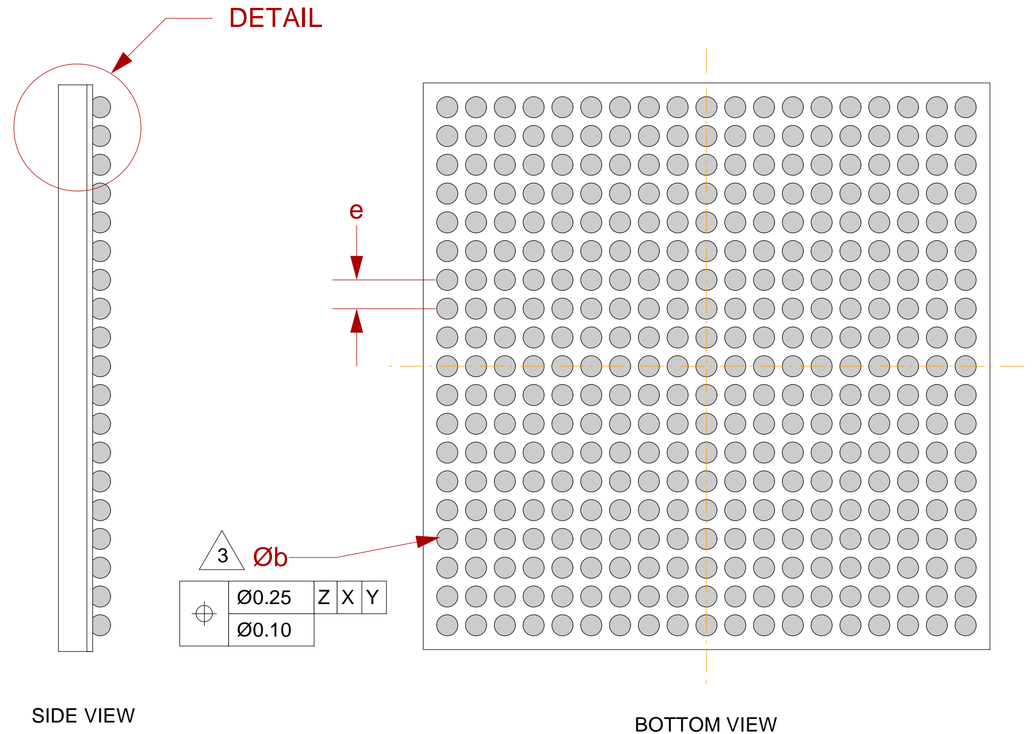
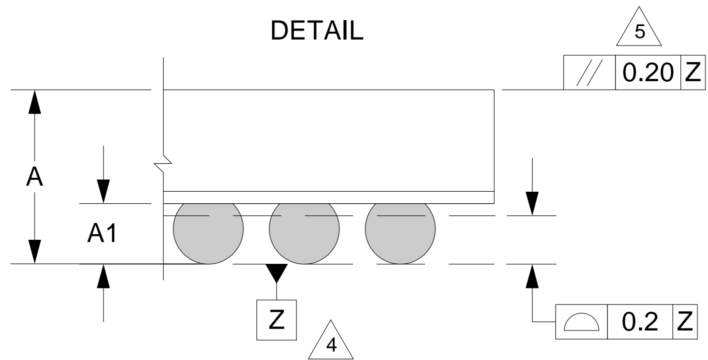
	File: SG-BGA-6065 Dwg.mcd	Modified: 7/17/09, AE	

Compatible BGA Spec







1. Dimensions are in millimeters.
2. Interpret dimensions and tolerances per ASME Y14.5M-1994.
3. Dimension b is measured at the maximum solder ball diameter, parallel to datum plane Z.
4. Datum Z (seating plane) is defined by the spherical crowns of the solder balls.
5. Parallelism measurement shall exclude any effect of mark on top surface of package.

DIM	MIN	MAX
A		3.24
A1	0.8	1.00
b		0.93
D	25.00 BSC	
E	25.00 BSC	
e	1.27 BSC	

Array 19x19

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Top View

2.50mm

2.50mm

1.27mm (x4)

32.725mm

5.00mm

5.03mm

27.730mm (x4)

Ø 1.61mm±0.05mm (x4)

Note: Backing plate holes are tapped to accept 0-80 screws.

10.00mm Sqr.

16.00mm (x4)

20.06mm

32.73mm

Side View

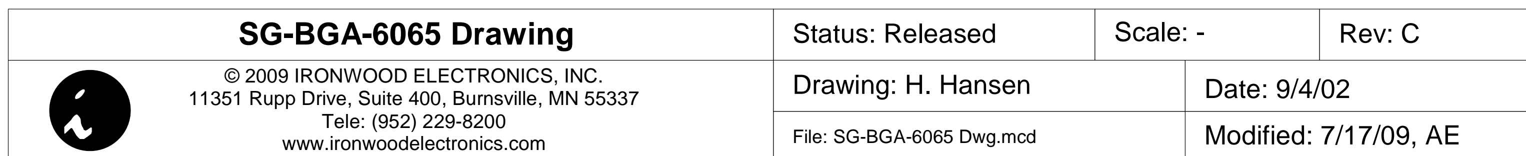
1.59mm

6.35mm

Insulation Plate

Backing Plate

Description: Backing Plate



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All dimensions are in mm.
All tolerences are +/- 0.125mm.
(Unless stated otherwise)