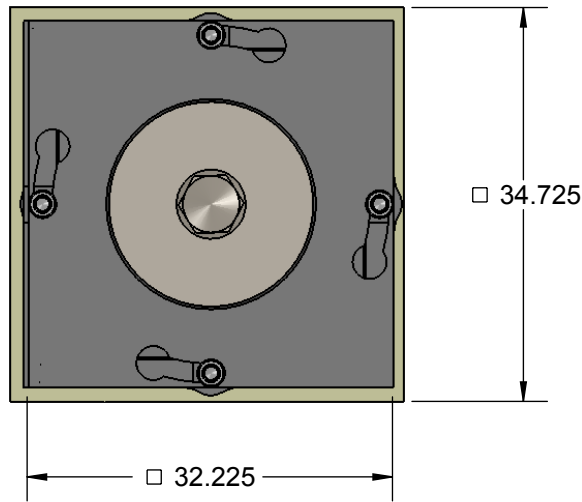


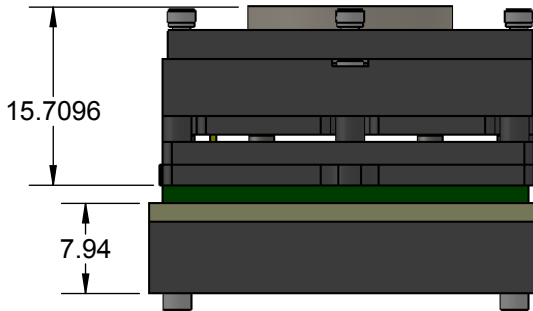
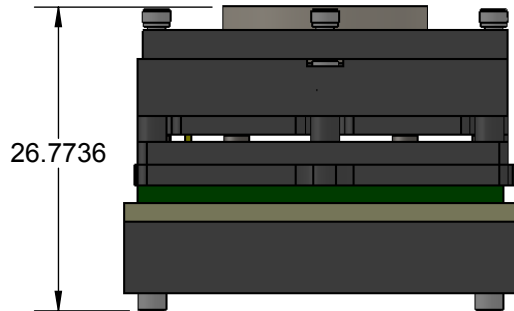
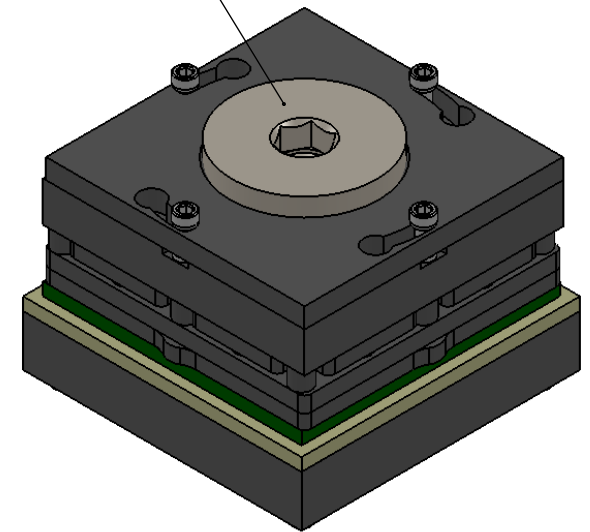
# SBT-BGA DIRECT MOUNT, SOLDERLESS SOCKET FOR BURN-IN AND TEST APPLICATIONS

## Features

- Wide temperature range (-55C to +180C)
- High current capability (up to 4A)
- Excellent signal integrity at high frequencies
- Low and stable contact resistance for reliable production yield
- Highly compliant to accommodate wide co-planarity variations
- Automated probe manufacturing enables low cost and short lead time




Recommended Torque: 6in-lbs

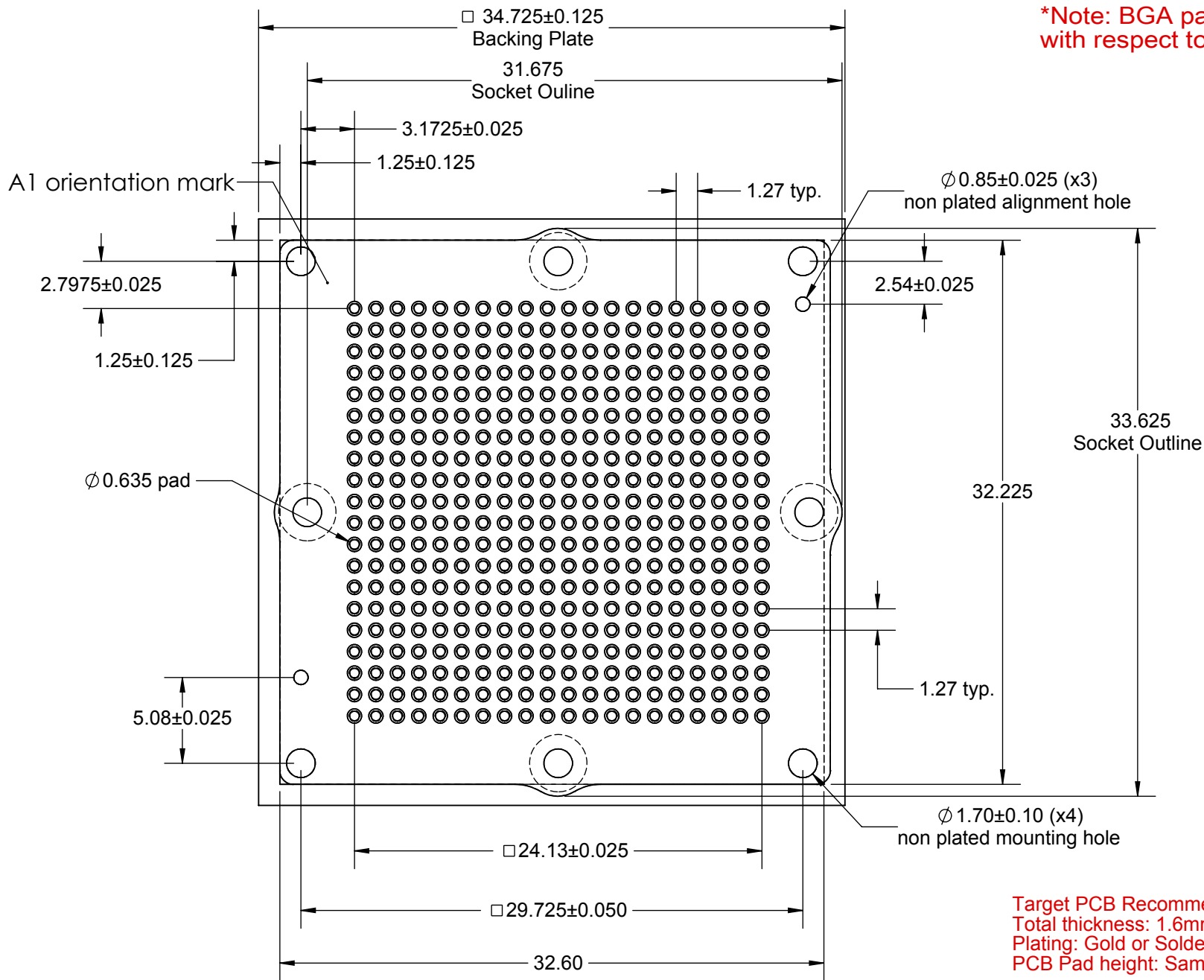


## Description: SBT-BGA Socket 27 X 27, 1.27mm, 20 X 20 Array

Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.

Tolerances: Hole diameters  $\pm 0.03\text{mm}$  [ $\pm 0.001$ "]. Pitches (from true position)  $\pm 0.025\text{mm}$  [ $\pm 0.001$ "], substrate thickness tolerance  $\pm 10\%$ , all other tolerances  $\pm 0.13\text{mm}$  [ $\pm 0.005$ "] unless stated otherwise. Materials and specifications are subject to change without notice.

 <b>SBT-BGA-6003 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: Material <not specified> Finish: Weight: 53.19	STATUS: Released	SHEET: 1 OF 5	REV. C
		ENG: B. Fedde	DRAWN BY: D. Hauer	SCALE: 3:2
		FILE: SBT-BGA-6003 Dwg	DATE: 12/15/2009	




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

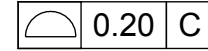
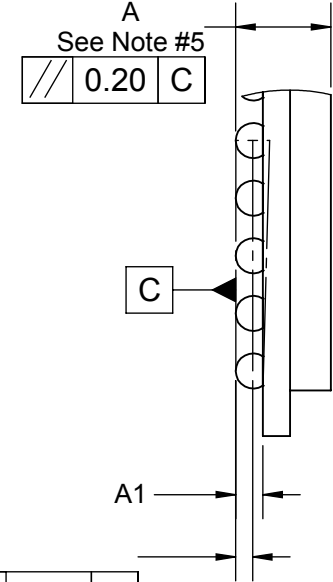
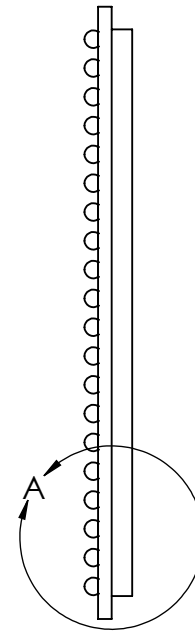
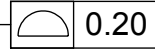
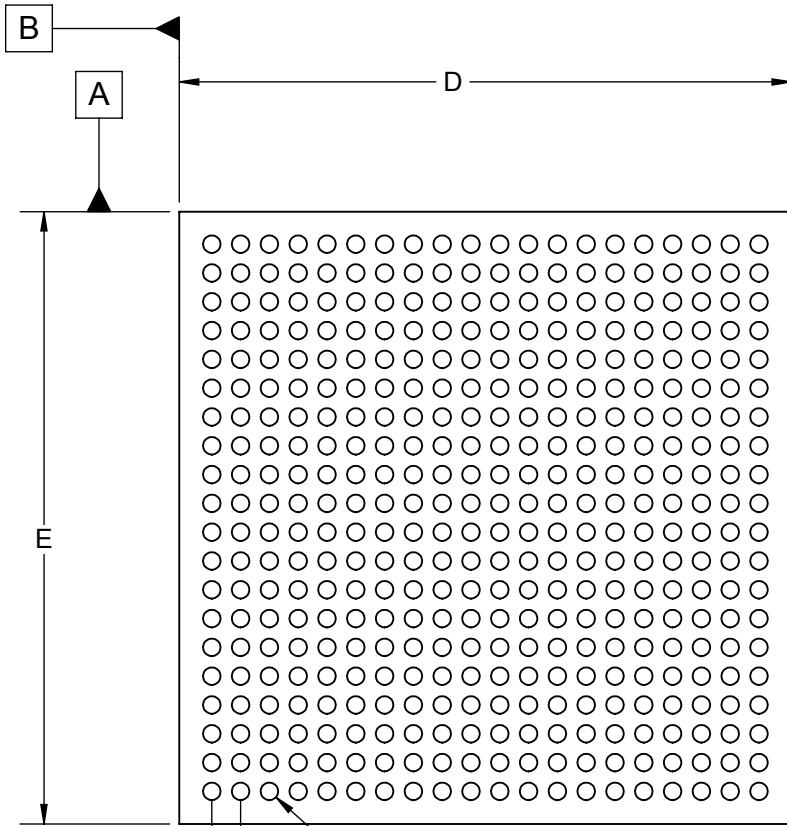
**Target PCB Recommendations**  
 Total thickness: 1.6mm min.  
 Plating: Gold or Solder finish  
 PCB Pad height: Same or higher than solder mask

**Description: Recommended Layout**

Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.  
 Tolerances: Hole diameters  $\pm 0.03\text{mm}$  [ $\pm 0.001"$ ], Pitches (from true position)  $\pm 0.025\text{mm}$  [ $\pm 0.001"$ ], substrate thickness tolerance  $\pm 10\%$ , all other tolerances  $\pm 0.13\text{mm}$  [ $\pm 0.005"$ ] unless stated otherwise. Materials and specifications are subject to change without notice.

 <b>SBT-BGA-6003 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: Material <not specified> Finish: Weight: 53.19	STATUS: Released	SHEET: 2 OF 5	REV. C
		ENG: B. Fedde	DRAWN BY: D. Hauer	SCALE: 3:1
		FILE: SBT-BGA-6003 Dwg	DATE: 12/15/2009	

Ironwood Package Code : BGA400F3



DETAIL A  
SCALE 6 : 1

1.27  
typ

$\phi b$   
See Note #3

$\oplus$	$\phi$	0.25	C	A	B
$\oplus$	$\phi$	0.10			


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.

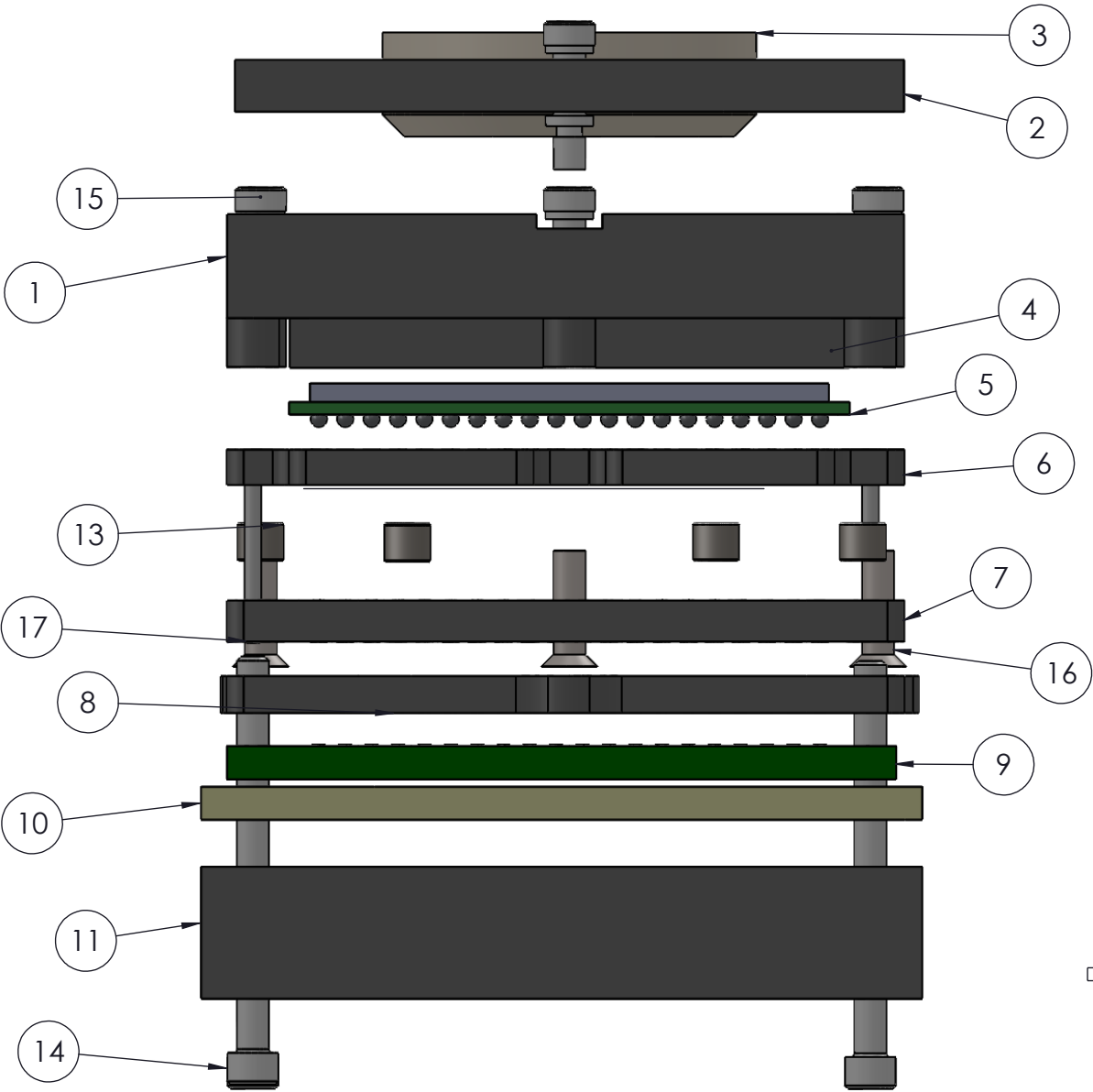
DIM	Minimum	Maximum
A		2.5
A1	0.5	0.7
b		0.90
D	27.0 BSC	
E	27.0 BSC	

Description: BGA Spec

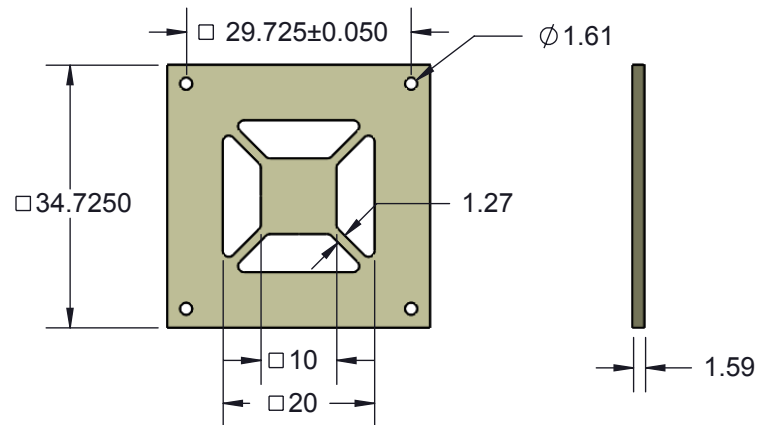
Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.  
 Tolerances: Hole diameters  $\pm 0.03\text{mm}$  [ $\pm 0.001"$ ], Pitches (from true position)  $\pm 0.025\text{mm}$  [ $\pm 0.001"$ ], substrate thickness tolerance  $\pm 10\%$ , all other tolerances  $\pm 0.13\text{mm}$  [ $\pm 0.005"$ ] unless stated otherwise. Materials and specifications are subject to change without notice.

20 x 20 Array

 <p><b>SBT-BGA-6003 Drawing</b>                  Ironwood Electronics, Inc.                  Tele: (800) 404-0204                  www.ironwoodelectronics.com</p>	Material: Material <not specified> Finish: Weight: 53.19	STATUS: Released	SHEET: 3 OF 5	REV. C
		ENG: B. Fedde	DRAWN BY: D. Hauer	SCALE: 2:1
		FILE: SBT-BGA-6003 Dwg	DATE: 12/15/2009	




ITEM NO.	DESCRIPTION	Material
1	Socket Base SBT 27x27mm Ni plated 0.375mm shift 1mm and 1.27 mm pitch IC	7075-T6 Aluminum Alloy
2	Socket Lid, 32.225 X 32.225	7075-T6 Aluminum Alloy
3	Compression Screw, M18	7075-T6 Aluminum Alloy
4	Compression Plate, 26.95 X 26.95	7075-T6 Aluminum Alloy
5	400 pin BGA package, 1.27mm Pitch	Material <not specified>
6	Floating Guide BGA 400 1.27mm Pitch	Semitron MDS 100
7	Middle Guide BGA 400 1.27mm pitch	Semitron MDS 100
8	Bottom Guide BGA 400 1.27mm Pitch	Semitron MDS 100
9	Test PCB BGA400, 1.27mm pitch 20x20 array	FR4
10	Insulation Plate 27mm IC	FR4
11	SBT Ni plit backing plit 27mm IC	7075-T6 Aluminum Alloy
12	Pogo Pin, 1mm Pitch SBT BGA pin	
13	Floating Guide Spring	Alloy Steel (SS)
14	#0-80 X .75 LG, SOC HD CAP SCREW, 18-8 SS	Stainless Steel (18-8)
15	#0-80 Shoulder Screw, 0.062" thread length	Stainless Steel (303)
16	#0-80, 90 deg., head pin guide screw, Peek material 5.5715mm overall Length	PEEK unfilled
17	Dowel pin, 1/32" x 5/16", SS	Chrome Stainless Steel



**Insulation Plate Specification**

**Description: Skt Assem, Insulation Plate**

Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.  
 Tolerances: Hole diameters ±0.03mm [±0.001"], Pitches (from true position) ±0.025mm [±0.001"], substrate thickness tolerance ±10%, all other tolerances ±0.13mm [±0.005"] unless stated otherwise. Materials and specifications are subject to change without notice.


 <b>SBT-BGA-6003 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	Material: Material <not specified> Finish: Weight: 53.19	STATUS: Released	SHEET: 4 OF 5	REV. C
		ENG: B. Fedde	DRAWN BY: D. Hauer	SCALE: 3:1
		FILE: SBT-BGA-6003 Dwg	DATE: 12/15/2009	

Rev	Date	Initials	Description
A	12/15/09	DH	Original
B	11/21/2013	BMF	BOM, and document update
C	01/27/15	DH	Updated layout page; bump-outs added to hardware holes

## Description: Sheet1

Primary dimension units are millimeters, Secondary dimension units are [inches], Weight is in grams.

Tolerances: Hole diameters  $\pm 0.03\text{mm}$  [ $\pm 0.001"$ ], Pitches (from true position)  $\pm 0.025\text{mm}$  [ $\pm 0.001"$ ], substrate thickness tolerance  $\pm 10\%$ , all other tolerances  $\pm 0.13\text{mm}$  [ $\pm 0.005"$ ] unless stated otherwise. Materials and specifications are subject to change without notice.

 <b>SBT-BGA-6003 Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com	<b>Material:</b> <b>Finish:</b> <b>Weight:</b>	STATUS: Released	SHEET: 5 OF 5	REV. C
		ENG: B. Fedde	DRAWN BY: D. Hauer	SCALE: 3:1
		FILE: SBT-BGA-6003 Dwg	DATE: 12/15/2009	