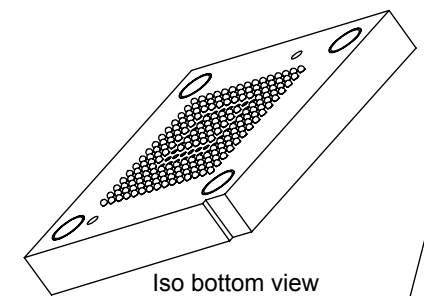
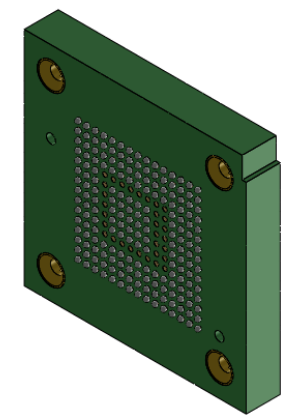


**TOP VIEW**



De-populated Solder Balls Bare pads ( 31 places)

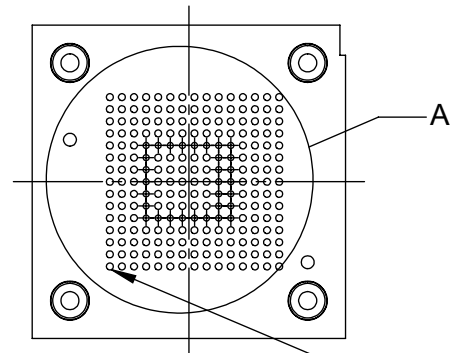
**Materials:**

1. Substrate: 3.18mm ±0.25mm [0.125" ±0.001"]  
FR4/G10 or equivalent high temp material.  
17µm [1/2 oz.] Cu clad. RoHS plating.

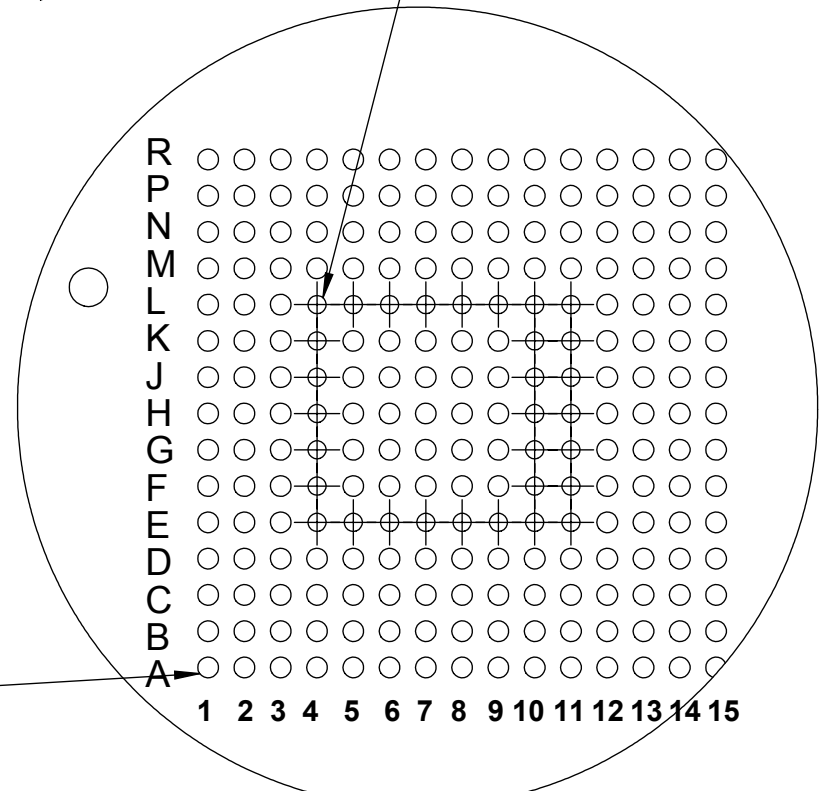
2. Solder ball: Sn96.5Ag3.0Cu0.5

**NOTE:** Side view and detail B on Sheet 2

**DETAIL A  
SCALE 6 : 1**




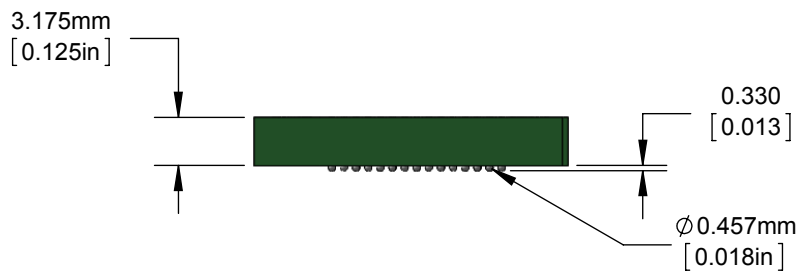
**BOTTOM VIEW**



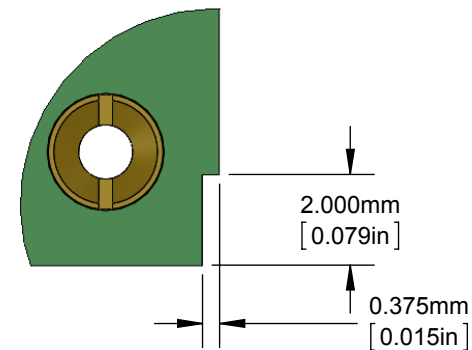
**Description: Surface mount foot for 13x13mm, 15x15 0.8mm pitch BGA194**

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.

 <p><b>SF-BGA194A-B-05F Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com</p>	<p>Material: N/A Finish: N/A Weight: 1.70</p>	<p>STATUS: Released</p>	<p>SHEET: 1 OF 2</p>	<p>REV. A</p>
		<p>DRAWN BY: D. Hauer</p>	<p>SCALE: 2:1</p>	
		<p>FILE: SF-BGA194A-B-05F Dwg</p>	<p>DATE: 10/1/12</p>	



**SIDE VIEW**




**DETAIL B  
SCALE 6 : 1**

Rev	Date	Initials	Description
A	10/12/12	DH	Original

**Description: Revision History**

Primary dimension units are millimeters, Secondary dimension units are [inches].

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.

 <p><b>SF-BGA194A-B-05F Drawing</b> Ironwood Electronics, Inc. Tele: (800) 404-0204 www.ironwoodelectronics.com</p>	<p>Material: N/A Finish: N/A Weight: 1.70</p>	STATUS: Released	SHEET: 2 OF 2	REV. A
		DRAWN BY: D. Hauer	SCALE: 2:1	
		FILE: SF-BGA194A-B-05F Dwg	DATE: 10/1/12	