## PARTS LIST

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY</th>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>105861</td>
<td>Ø6.0 Wafer Heater Assembly, BOM</td>
</tr>
</tbody>
</table>

### Notes:
1. Estimated operation:
   - Inner Zone:
     - 16.9V, 26.7A @ 800°C
     - 22.9V, 31.5A @ 1000°C
   - Outer Zone:
     - 11.1V, 26.7A @ 800°C
     - 15.1V, 31.5A @ 1000°C
2. Thermocouples are Type "K", Inconel sheathed with Kapton insulated leads that will be terminated to thermocouple feedthrus. They Are positioned on a Ø5.5 and Ø4.0 BHC.

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### Drawing Information
- **Drawn:** mcurtis
- **Checked:**
- **Approved:**
- **Date:** 10/13/2009

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### Revision History

<table>
<thead>
<tr>
<th>REV</th>
<th>DESCRIPTION</th>
<th>DATE</th>
<th>APPROVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Changed pad design.</td>
<td>1/19/10</td>
<td>MC</td>
</tr>
</tbody>
</table>

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**HeatWave Labs, Inc.**

**Ø6.0 Wafer Heater, 1100°C UHV, Sealed**
2X .020 Thick Inconel Heat Shield, Dimpled as Required to Maintain Spacing

Inconel Support Plate

Dowel Pin Registry for Clocking of Support Tube and Push Pin Assemblies with Referance to Heater Details

DETAIL C
SCALE 1 : 1

Inconel Support Tube

Notch for Gas Purge Plate Alignment

DETAIL H
SCALE 4 : 1

21X Ø0.050

.04 Cold (.00-.015 Hot)

21X .030± .003, (12X On Ø4.50 BHC, 6X On Ø2.75 BHC, 3X On Ø1.00 BHC, All Patterns Start at 12 O'Clock)

.040

3X .92 Maximum Travel

3 Layer .020 thick Heat Shield Pack, Dimpled to Maintain Spacing

Inconel Lift Pin Guide Plate

Ø.04 Inconel Keeper Pins

Internal Moly Rear Heat Shield

DETAIL D
SCALE 1 : 1

HeatWave Labs, Inc.
195 Aviation Way, Suite 100 P: 831-722-9081
Watsonville, CA 95076 F: 831-722-5491
www.cathode.com

Ø6.0 Wafer Heater, 1100°C UHV, Sealed

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Shown with Customer Supplied Pyrometer

4-40 UNC - 2B \( \frac{1}{4} \) .250 @ 90° On \( \varnothing3.70 \) BHC, Center Hole Located Aligned w/Cooling Lines

Mating CFF Must Have \( \varnothing4.0 \) Minimum Thru Bore

2X \( \varnothing1/4 \) Water Cooling Line

Shown with Customer Supplied Gas Purge Plate

Internal Volume of Heater is Sealed with UHV Inside, Sealed w/Pinch Off Tube Located at CFF End

\( \varnothing6.0 \) Wafer Heater, 1100°C UHV, Sealed
3X Ø1/4 Cu Power Feedthru, Center Tap

Inner Element

Outer Element

2X Type K Thermocouple Feedthru, Mini Connector

Cooling Lines

Vacuum Pinch Off

DETAIL G
SCALE 1 : 1
This view shown without Lift Pin

Ø6.0 Wafer Heater, 1100°C UHV, Sealed

HeatWave Labs, Inc.
195 Aviation Way, Suite 100
Watsonville, CA 95076
www.cathode.com

R.13
.250 x .110 Deep
R2.960

VIEW F-F
SCALE 1/5

VIEW F-F
SCALE 1/5