

## Product / Process Change Notice

**Parts Affected:**

Chip process CP206, N-Channel Field Effect Transistors, wafers, and bare die.

**Extent of Change:**

The CP206 wafer process has been discontinued and replaced with the CP216 wafer process. See figures 1 and 2 for details.

**Reason for Change:**

This process was transferred to an alternate wafer foundry which provides improved and consistent yields.

**Revision 1 September 26, 2019:** Issued to include additional devices not on the initial PCN release. Newly added devices are shown in the “Part Numbers Affected” section on page 3 marked with \*.

**Effect of Change:**

The wafer process meets all electrical specifications of the individual devices listed on the following page.

**Qualification:**

| Test   | Condition  | Failure rate |
|--|--|--------------|
| Resistance to Solder Shock                                     | T = 260°C ± 5°C<br>Dwell time = 10 sec.<br><b>JESD22-B106</b>  | 0/77         |
| High Temperature Storage Life/ bake test.                      | 150°C (-0/+10)°C, 1000 hours.<br><b>JESD22-A103</b>  | 0/77         |
| Temperature Cycling  | T = -65°C to +150°C<br>1000 cycles. Dwell time = 15 min.<br><b>JESD22-A104</b>   | 0/77         |
| High Temperature Reverse Bias (HTRB)                           | T = 125°C, t = 1000 hours, V <sub>R</sub> = V <sub>Z</sub><br><b>JESD22-A108</b>   | 0/77         |
| Highly Accelerated Temperature and Humidity Stress Test (HAST) | T = 130°C, RH = 85%, P = 33.3 psia, and t = 96 hours.<br>Bias conditions per device specification sheet.<br><b>JESD22-A110</b> | 0/77         |
| Accelerated Moisture Resistance Unbiased Autoclave             | Temperature = 121°C ± 2°C; relative humidity = 100%; vapor pressure = 29.7 psia (15psig). t = 96 hours<br><b>JESD22-A102</b>   | 0/77         |

**Effective Date of Change:**

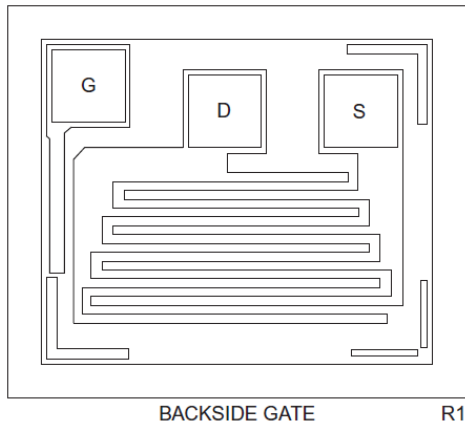
April 16, 2018 - Existing inventory will be shipped until depleted.

**PCN # 165\_Rev 1**  
**Revision Notification Date: 26 Sept. 2019**  
**Original Notification Date: 16 April 2018**

**Sample Availability:**

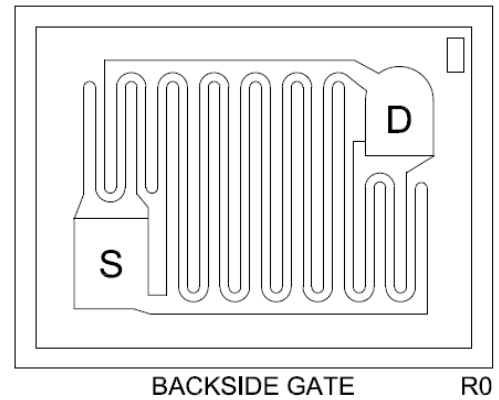
Please contact Salesperson or Manufacturer's Representative.

**Figure 1: CP206 Chip Geometry (Discontinued)**



|                         |                |
|-------------------------|----------------|
| Wafer Diameter:         | 5 inch         |
| Die Size:               | 21 x 18 mils   |
| Die Thickness:          | 8.0 mils       |
| Bond Pad Size (Drain):  | 3.0 x 3.0 mils |
| Bond Pad Size (Source): | 3.0 x 3.0 mils |
| Bond Pad Size (Gate):   | 3.0 x 3.0 mils |
| Topside Metal:          | Al (30,000Å)   |
| Backside Metal:         | Au (6,000Å)    |

**Figure 2: CP216 Chip Geometry**



|                         |                |
|-------------------------|----------------|
| Wafer Diameter:         | 4 inch         |
| Die Size:               | 21 x 16 mils   |
| Die Thickness:          | 7.9 mils       |
| Bond Pad Size (Drain):  | 3.3 x 4.5 mils |
| Bond Pad Size (Source): | 3.3 x 4.5 mils |
| Topside Metal:          | Al (10,000Å)   |
| Backside Metal:         | Au (3,250Å)    |

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**Part Numbers Affected:**

|          |                  |
|----------|------------------|
| 2N4391   | CP206-2N4391-CT  |
| 2N4392   | CP206-2N4391-WN  |
| 2N4393   | CP206-2N4392-CM  |
| 2N4092   | CP206-2N4392-CT  |
| 2N4861   | CP206-2N4392-WN  |
| 2N4861A  | CP206-2N4393-CT  |
| CMPF4391 | CP206-2N4393-WN  |
| CMPF4392 | CP206-2N4856-CM* |
| CMPF4393 | CP206-2N4856-CT* |
| PN4091*  | CP206-2N4856-WN* |
| PN4092*  | 2N4091*          |
| PN4093*  | 2N4856*          |
| PN4391*  | 2N4856A*         |
| PN4392*  | 2N4857*          |
| PN4393*  | 2N4857A*         |
| CEN1280* | 2N4859*          |
|          | 2N4859A*         |

\*Revision 1 September 26, 2019 newly added devices



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As per JEDEC standard JESD46, Customer Notification of Product/Process Changes by Solid-State Suppliers, a lack of acknowledgement of a PCN within thirty (30) days constitutes acceptance of the change.

The undersigned acknowledges and accepts Central Semiconductor's Product/Process Change Notification (PCN).

|               |  |
|---------------|--|
| Company Name: |  |
| Address:      |  |
|               |  |
|               |  |
| Printed Name: |  |
| Title:        |  |
| Signature:    |  |
| Date:         |  |