

## Product / Process Change Notice

### Parts Affected:

Chip process CP210, N-Channel JFETs, wafers and bare die

### Extent of Change:

The CP210 wafer process has been discontinued and replaced with the CP232V wafer process. See figures 1 and 2 for details.

### Reason for Change:

The CP210 wafer process has been replaced by the CP232V wafer process in order to enhance the manufacturing process controls and performance. In addition, this change is being made to ensure uninterrupted supply of product, moving forward.

**Revision 1 September 27, 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:

P/N: CP232V Chip Process

Package: TO-72

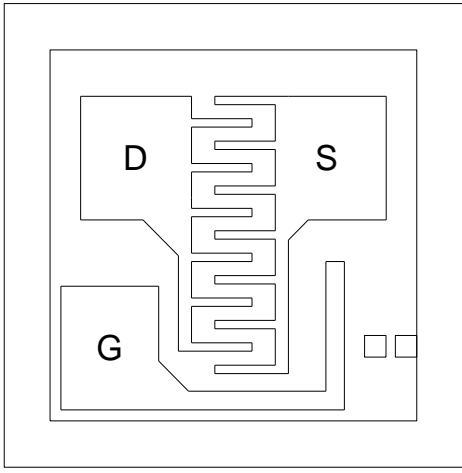
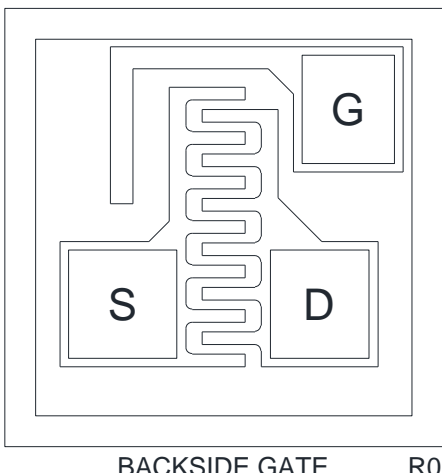
No.	Test	Conditions (Reference standards are in bold)	Qty	Pass/Fail	Test Results
<b>1</b>	<b>Device Life Tests</b>				
a	High Temperature Gate Bias (HTGB)	T=125°C, t = 1000 hours 100%, VGS=35V, Source and Drain Shorted <b>JESD22-A108</b>	77	Pass	77/77
b	High Temperature Storage Life (HTSL)	T=150°C, t = 1000 hours <b>JESD22-A103</b>	77	Pass	77/77
C	Thermal Shock	100 cycles, dwell time = 5 min, -65°C to +150°C, max transfer time = 20 sec. <b>JESD22-A106</b>	77	Pass	77/77
D	Temperature Cycling (TC)	-65°C to +150°C, Tdwel = 15min, 1000 cycles	77	Pass	77/77

**Effective Date of Change:**

Existing Inventory of chip process CP210 will be shipped until depleted.

**Sample Availability:**

Please contact your salesperson or manufacturer's representative for samples.

<b>Figure 1: CP210 Chip Geometry (Discontinued)</b>		<b>Figure 2: CP232V Chip Geometry</b>	
			
Wafer Diameter	5 inch	Wafer Diameter	5 inch
Die Size	15 x 15 mils	Die Size	14 x 14 mils
Die Thickness	8.0 mils	Die Thickness	7.1 mils
Bond Pad Size (Gate):	4.0 x 3.2 mils	Bond Pad Size (Gate):	2.95 x 3.46 mils
Bond Pad Size (Source):	4.0 x 3.2 mils	Bond Pad Size (Source):	3.46 x 3.46 mils
Bond Pad Size (Drain):	4.0 x 3.2 mils	Bond Pad Size (Drain):	3.15 x 3.46 mils
Topside Metal:	Al (30,000Å)	Topside Metal:	Al-Si (17000Å)
Backside Metal:	Au (6,000Å)	Backside Metal:	Au-As (9000Å)
<b>Part Numbers Affected:</b> * Revision 1 September 27, 2019 newly added devices			
2N4416A	CP210-2N4416-CM	2N3819*	
2N4416	CP210-2N4416-CT	2N5486*	
CMPF4416A	CP210-2N4416A-CM	2N5952*	
CEN835	CP210-2N4416A-CT		
CMPF5485	CP210-2N4416A-WN		
CMPF5486	CP210-CEN1308-CT		
CEN1165	CP210-2N5486-CT		



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**PCN # 174\_Rev 1**  
**Revision Notification Date: 27 Sept. 2019**  
**Original Notification Date: 13 Aug. 2019**

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:	