

<u>mailto:processchange@centralsemi.com</u> <u>https://www.centralsemi.com/process-change-notices</u>

# **PCN # 229**

Initial Notification Date: December 13, 2021

Final Notification Date: March 18, 2024

# **Product / Process Change Notice**

### **Parts Affected:**

Power transistor chip processes CP230 (NPN) and CP630 (PNP), wafers and bare die.

## **Extent of Change:**

Complementary wafer processes CP230 (NPN) and CP630 (PNP) have been discontinued and are being replaced with CP260 (NPN) and CP660 (PNP) wafer processes. See figures 1 and 2 for details.

### **Reason for Change:**

Wafer processes CP230 and CP630 are being replaced by wafer processes CP260 and CP660, respectively, to enhance manufacturing process controls and performance. In addition, this change is being made to ensure an undisrupted supply of product, moving forward.

#### **Effect of Change:**

Replacement wafer processes CP260 (NPN) and CP660 (PNP) meet all electrical specifications of original wafer processes CP230 (NPN) and CP630 (PNP), for the individual devices listed below.

#### Qualification:

Test	Condition	Duration	Failure rate
High Temperature Storage Life	Ta=150°C JESD22-A103	1000 Hours	0/77
High Temperature Reverse Bias	Ta=125°C Bias conditions per device datasheet. JESD22-A108	1000 Hours	0/77
Steady State Operational Life	Ta = 125°C Bias conditions per device datasheet. JESD22-A105	1000 Hours	0/77

## **Earliest Effective Date of Change:**

March 18, 2024

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**NPN** 

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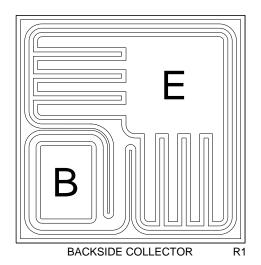
# **Part Numbers Affected:**

PNP

CP230-2N6039-CM CP630-2N6036-CT CP230-2N6039-CT CP630-2N6036-WN CP230-2N6039-WN CP630-CZT122-CT CP230-CZT122-WN CP230-H2N6039-CM CP630-TIP127-WN CP230-KTIP122-CM CP630-TIP127-WR

CP230-TIP122-CM CP230-TIP122-CT CP230-TIP122-CT20 CP230-TIP122-WN

#### Figure 1: CP230 / CP630 Chip Geometry (Discontinued)



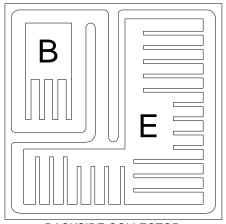
Wafer Diameter: 4 inch
Die Size: 80 x 80 mils
Die Thickness: 8.0 mils
Bond Pad Size (Emitter): 34 x 34 mils
Bond Pad Size (Base): 18 x 27 mils
Topside Metal: Al (30,000Å)
Backside Metal: Ti/Pd/Ag (20,000Å)

#### Figure 2: CP260 / CP660 Chip Geometry

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**BACKSIDE COLLECTOR** 

Wafer Diameter: 4 inch
Die Size: 71 x 71 mils
Die Thickness: 9.4 mils
Bond Pad Size (Emitter): 15 x 21 mils
Bond Pad Size (Base): 15 x 19 mils
Topside Metal: Al (42,500Å)
Backside Metal: Ag (12,000Å)

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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:	

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