**Product / Process Change Notice**

**Parts Affected:**

Chip process CP391, N-Channel MOSFETs, wafers and bare die

**Extent of Change:**

The CP391 wafer process has been discontinued and replaced with the CP399 wafer process. See figures 1 and 2 for details.

**Reason for Change:**

The CP391 wafer process has been replaced to the CP399 wafer process in order to enhance the manufacturing process controls and performance. The wafer size has increased from 6 inch to 8 inch in order to improve throughput. In addition, this change is being made to ensure undisrupted supply of product, moving forward.

**Effect of Change:**

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

**Qualification:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | P/N: | CP399 Chip Process |  | Package: | TO-220FP |
|  |  |  |  |  |  |  |
| **No.** | **Test** | **Conditions**(Reference standards are in bold) | **Qty** | **Pass/Fail** | **Test Results** |
| **1** | **Device Life Tests** |
|  | a | **High Temperature Gate Reverse Bias (HTGB)** | T=150°C, t = 1000 hours100% VGS=30V**JESD22-A110** | 45 | Pass | 45/45 |
|  | b | **High Temperature Reverse Bias (HTRB)** | T=150°C, t = 1000 hoursVDS=600V**JESD22-A108** | 45 | Pass | 45/45 |
|  | C | **High Accelerated Temperature and Humidity Stress Test (HAST)** | T=130°C, t = 96 hours, 85%RH, 230kPA, VDS=42V**JESD22-A108** | 45 | Pass | 45/45 |
|  | D | **Temperature Cycling (TC)** | -65°C -+150°C, Tdwell ≥10min, 500 cycles | 45 | Pass | 45/45 |

**Effective Date of Change:**

Existing inventory of chip process CP391 will be shipped until depleted.

**Sample Availability:**

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

**Figure 1: CP391 Chip Geometry (Discontinued) Figure 2: CP399 Chip Geometry**

 

Wafer Diameter: 8 inch

Die Size: 149.6 x 107.1 mils

Die Thickness: 9.1 mils

Bond Pad Size (Gate): 13.4 x 16.9 mils

Bond Pad Size (Source): 78.7 x 74.8 mils

Topside Metal: Al (43,000Å)

Backside Metal: Ag (8000Å)

Wafer Diameter: 6 inch

Die Size: 161 x 129 mils

Die Thickness: 9.1 mils

Bond Pad Size (Gate): 14 x 17.3 mils

Bond Pad Size (Source): 70.9 x 51.2 mils

Topside Metal: Al (43,000Å)

Backside Metal: Ag (8000Å)

**Part Numbers Affected:**

|  |  |
| --- | --- |
| CDM22011-600LRFP | CP391-CDM11-600L-WN |
|  | CP391-CDM11-600L-CT |

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: |  |
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| Printed Name: |  |
| Title: |  |
| Signature: |  |
| Date: |  |