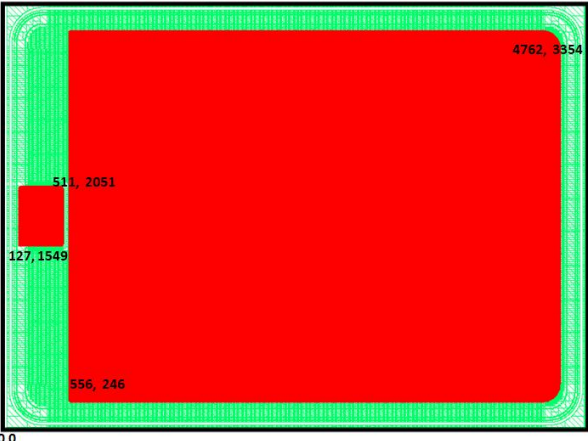


## 200V MOSFET Wafer

### Ordering Information

|            |              |           |   |
|------------|--------------|-----------|---|
| Wafer Name | CDJX424N200A | Chip Name | / |
|------------|--------------|-----------|---|

### Die outline and Info.

|                                                                                    |                                                                                                                                                                                                                                                                                                                                   |
|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p><math>V_{DS}=200V, I_D=31A</math></p> <p><math>R_{DS(ON)} &lt; 95m\Omega</math></p> <p>Die Size: 5000 um * 3600 um (含划片槽)</p> <p>Gate Pad Size: 384 um * 502 um</p> <p>Source Pad Size: 4206 um * 3108 um, With PA Layer</p> <p>Back Metal: TiNiAg, 1.4μm</p> <p>Front Metal, Thickness: AlSiCu, 4μm</p> <p>Gross Die: 850</p> |
|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Mechanical Data

|                                             |                                                                                 |
|---------------------------------------------|---------------------------------------------------------------------------------|
| Nominal Back Metal Composition:             | TiNiAg 1.4μm                                                                    |
| Nominal Front Metal Composition, Thickness: | AlSiCu(98.5%-1%-0.5%) 4μm                                                       |
| Wafer Diameter:                             | 150 mm (6 inch)                                                                 |
| Wafer Thickness:                            | 300μm+/-20μm                                                                    |
| Minimum Street Width                        | 60μm                                                                            |
| Reject Ink Dot                              | ink                                                                             |
| Recommended Storage Environment:            | Store in original container, in desiccated nitrogen, with no contamination      |
| Recommended Die Attach Conditions:          | For optimum electrical results, die attach temperature should not exceed 300 °C |

## Electrical Characteristic Note\*

( Device Major Electrical Characteristics for TO-247H package Reference ;  $T_J=25^{\circ}\text{C}$  unless otherwise specified.)

| Parameter     | Description                          | Min.                                                  | Typ. | Max.      | Test Conditions                                        | Unit               |
|---------------|--------------------------------------|-------------------------------------------------------|------|-----------|--------------------------------------------------------|--------------------|
| $V_{(BR)DSS}$ | Drain-to-Source Breakdown Voltage    | 200                                                   | --   | --        | $V_{GS} = 0V, I_D = 250\mu A$                          | V                  |
| $V_{GSS}$     | Gate-to-Source Voltage               | --                                                    | --   | $\pm 30$  | NA                                                     | V                  |
| $R_{DS(on)}$  | Static Drain-to-Source On-Resistance | --                                                    | 79   | 95        | $V_{GS} = 10V, I_D = 15.5A$                            | $m\Omega$          |
| $V_{GS(th)}$  | Gate Threshold Voltage               | 2.0                                                   | --   | 4.0       | $V_{DS} = V_{GS}, I_D = 250\mu A$                      | V                  |
| $I_{DSS}$     | Drain-to-Source Leakage Current      | --                                                    | --   | 1         | $V_{DS} = 200V, V_{GS} = 0V, T_J = 25^{\circ}\text{C}$ | $\mu A$            |
| $I_{GSS}$     | Gate-to-Source Leakage Current       | --                                                    | --   | $\pm 100$ | $V_{GS} = \pm 30V$                                     | nA                 |
| $V_{SD}$      | Body Diode Voltage                   | --                                                    | --   | 1.5       | $V_{GS} = 0V, I_{SD} = 31A$                            | V                  |
| $T_J$         | Operating Junction and               | -55 $^{\circ}\text{C}$ to 150 $^{\circ}\text{C}$ Max. |      |           |                                                        | $^{\circ}\text{C}$ |
| $T_{STG}$     | Storage Temperature Range            |                                                       |      |           |                                                        |                    |

### Note\*

Electrical characteristics are reported for the reference packaged part (TO-247H) and can not be guaranteed in die sales form. Variations in customer packaging materials, dimensions and processes may affect parametric performance.

### Shipping

- One shipping options is offered as standard.
- Un-sawn wafer

### Handling

- Product must be handled only at ESD safe workstations. Standard ESD precautions and safe work environments are as defined in MIL-HDBK-263.
- Product must be handled only in a class 10,000 or better-designated clean room environment.

### Wafer/Die Storage

- Proper storage conditions are necessary to prevent product contamination and/or degradation after shipment.
- Un-sawn wafers and singulated die can be stored for up to 12 months when in the original sealed packaging at room temperature (45% +/- 15% RH controlled environment).
- Un-sawn wafers and singulated die that have been opened can be stored when returned to their containers and placed in a Nitrogen purged cabinet, at room temperature (45% +/- 15% RH controlled environment).
- Note: To reduce the risk of contamination or degradation, it is recommended that product not being used in the assembly process be returned to their original containers and resealed with a vacuum seal process.
- Sawn wafers on a film frame are intended for immediate use and have a limited shelf life.

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    - b. support or sustain life,
    - c. whose failure to perform when properly used in accordance with instructions for used provided in the labeling, can be reasonably expected to result in significant injury to the user.
  2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.
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