


500V MOSFET Wafer

Ordering Information

Wafer Name	CDJX735N500A	Chip Name	/
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Die outline and Info.

	<p>$V_{DS}=500V, I_D=40A$</p> <p>$R_{DS(ON)} < 139m\Omega$</p> <p>Die Size: 9000 μm * 6000 μm (含划片槽)</p> <p>Gate Pad Size: 502 μm * 806 μm</p> <p>Source Pad Size: 8039 μm * 1741 μm * 3, With PA Layer</p> <p>Back Metal: TiNiAg, 1.4μm</p> <p>Front Metal, Thickness: AlSiCu, 4μm</p> <p>Gross Die: 258</p>
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Mechanical Data

Nominal Back Metal Composition:	TiNiAg 1.4 μm
Nominal Front Metal Composition, Thickness:	AlSiCu(98.5%-1%-0.5%) 4 μm
Wafer Diameter:	150 mm (6 inch)
Wafer Thickness:	300 μm +/-20 μm
Minimum Street Width	60 μm
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	500	--	--	$V_{GS} = 0V, I_D = 250\mu A$	V
V_{GSS}	Gate-to-Source Voltage	--	--	± 30	NA	V
$R_{DS(on)}$	Static Drain-to-Source On-Resistance	--	115	139	$V_{GS} = 10V, I_D = 15A$	m Ω
$V_{GS(th)}$	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	$V_{DS} = 500V, V_{GS} = 0V, T_J = 25^{\circ}\text{C}$	μA
I_{GSS}	Gate-to-Source Leakage Current	--	--	± 100	$V_{GS} = \pm 30V$	nA
V_{SD}	Body Diode Voltage	--	--	1.5	$V_{GS} = 0V, I_{SD} = 30A$	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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