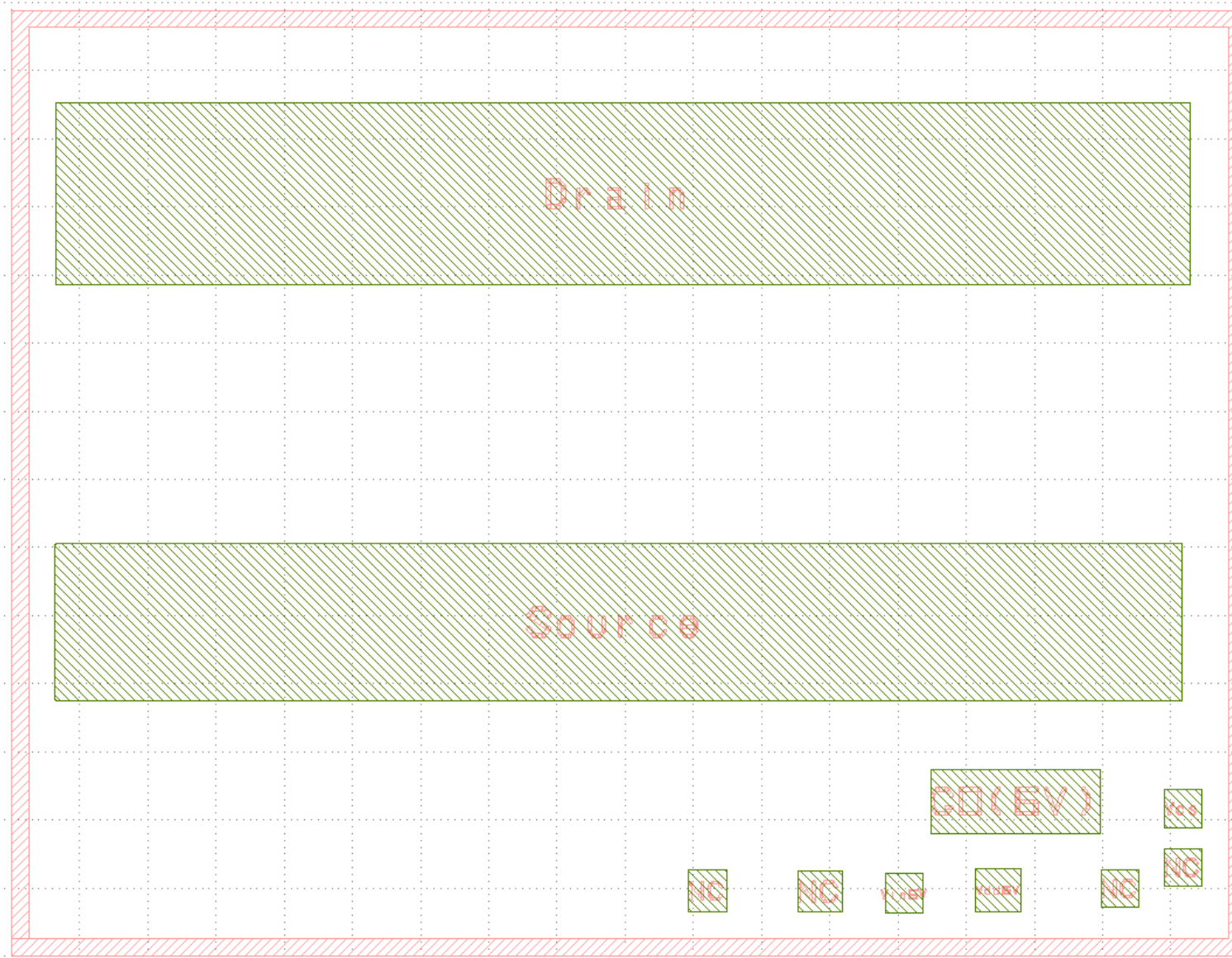# Wafer datasheet
Chiba3060IC-RG4T30 (900V/30A)(650V/30A) GaNFET/IC
Optional Driver IC Integration
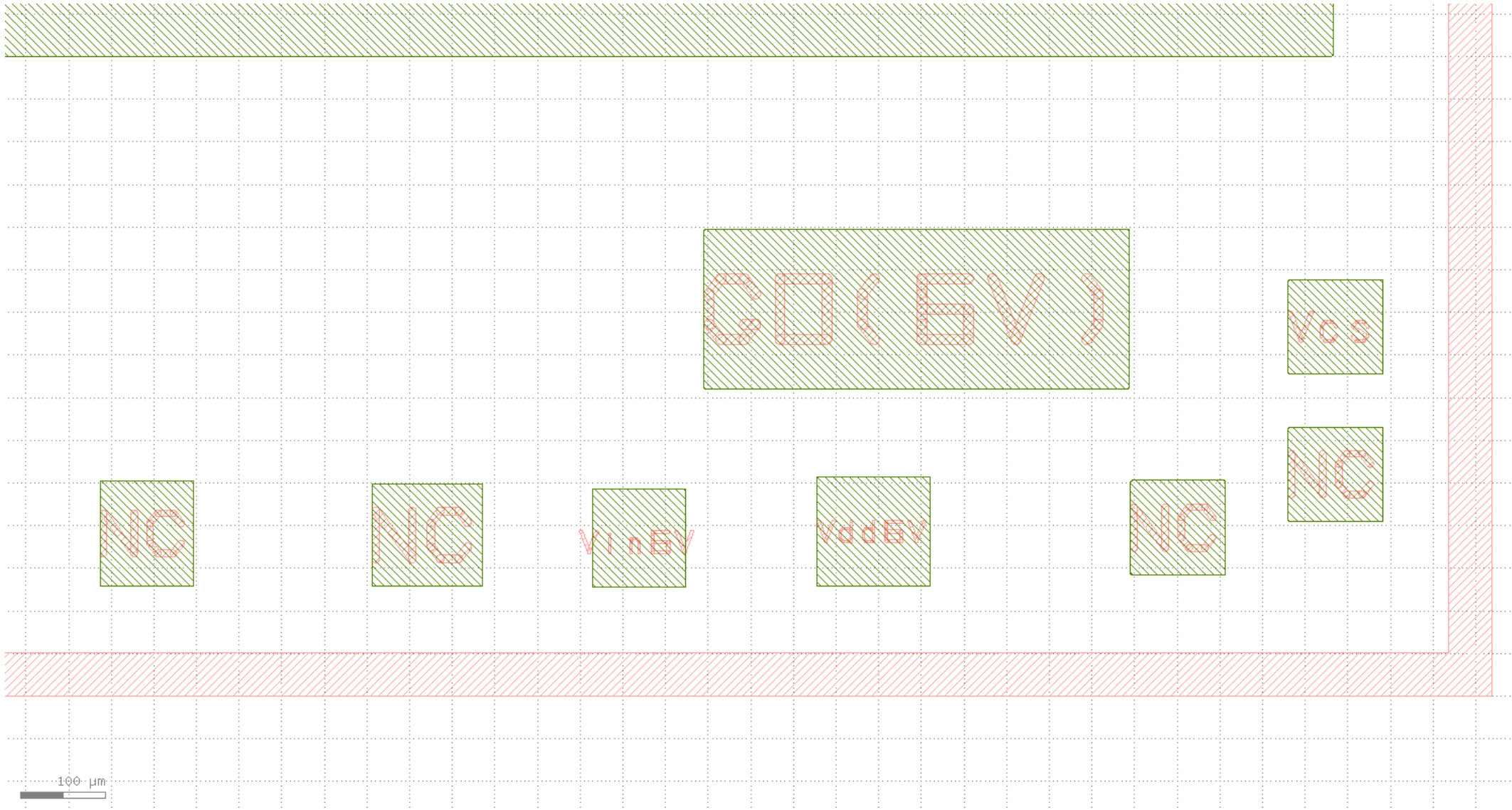# Feb. 2025

Features

Choice of original 6V gate driving or driver IC integration

Lossless source side current sensing

Device-name	x-size	y-size
RG4T30	3618.91	2777.14

GaNPOWER

CD(BV)

Vcs

NC

NC

NC

VInBV

VddBV

NC

100 μm

Device-name	x-size	y-size
RG4T30	3618.91	2777.14

```
--------------------------------------------------------------------
PAD       Dx         Dy        Center_x     Center_y
--------------------------------------------------------------------
G0(6V)    498.50     187.04    2944.50      454.05
Vin6V     140.00     154.00    2618.89      180.80
Vdd6V     133.26     128.00    2893.86      193.13
Source    3305.72    461.44    1780.66      980.62
Drain     3326.72    534.00    1793.16      2238.34
Vcs       111.00     111.00    3435.70      433.30
NC        111.00     111.00    3250.87      197.55
NC        111.00     111.00    3435.70      260.30
NC        110.00     123.84    2041.75      191.05
NC        130.00     120.00    2370.57      189.13
--------------------------------------------------------------------
```

Basic specifications

Back metal	None
Front metal	AlCu 4um
Wafer diameter	6 inch
Wafer thickness before dicing	1000 um
Recommended die thickness after dicing	250-300um
Street width	80 um
Recommended storage	N2 environment

Wire bonding suggestion

Larger pads use 10mil or 12mil Al .

Smaller pads use Cu, PdCu , or Au (1.5 mil – 2 mil)

Backside must be glued to backplate using conductive glue

Backplate must be connected to the source of the GaNFET using wire bonding

Characteristics

		Condition	min	typical	max	
Ids-max	Max current at 125C	Vgs=6 125C Or Vdd=6 Vin=6		30		A
Ids-max	Max current at 25C	Vgs=6 25C Or Vdd=6 Vin=6		60		A
Vds-max	D-S breakdown voltage	Vgs=0 25C < 25uA		900		V
Vg0s	Original gate voltage		-3	6	7	V
Vin(6V)	PWM input		-3	6.5	7	V
Vdd(6V)	Aux DC power supply			6		V
Vgth (G0)	Original gate	Vgs=Vds Ids=18 mA		1.3		V
Idss	Drain leakage	Vg1s=0 / Vg0s=0 25C Vds=900			25	uA
Igss	Forward gate leakage	Vgs=6 Vds=0			1	mA
Rdson	On resistance	Vg0s=6/Vg1s=15 Ids=1A 25C		48		mOhm
Rdson	On resistance	Vg0s=6/Vg1s=15 Ids=1A 150C		105		mOhm
Vcs	Current sensing	Ids=+/-30A	-2.5		2.5	V
Qg	Gate charge	Vbus=500V Turn-off from Ids=60A Vgs from 6 to 0 25C		7		nC

Application note on Vin (6V) driving

Vdd=6V is needed.

Application note on G0 (6V) driving

G0 is unprotected against ESD at this version and can be used as a standard EMODE p-GaN gate.
Recommended Rgoff=0 Rgon=10-20 Ohm