INFD065C1004S3W01A

◇ 650V 100mΩ D-Mode GaN HEMT Preliminary wafer datasheet

Applications

- Power Adapters / Converter
- PFC Application
- Appliance Motor Drives
- Wireless Power Transfer
- Synchronous Rectifier for Application

Key Features

Parameter	Value	Unit
BV_{DSS}	650	V
I_D	15	A
Die Size	3760x1906	um
Gross Die	901	ea

Chip Size & Pad Position (unit: um)

Die w/o scribe line(50um)

A1(0,0), A2(3710,1856)

Gate

G1(31,1698), G2(166,1833)

G3(3554,1833), G4(3689,1698)

Source

S1(193,1693), S2(3526,1828)

Source

D1(52,29), D2(3659,169)

Die Descriptions

- Wafer Size: 4 inch (±0.1inches)
- Wafer THK: 650 ±25um
- Die Size: 3760x1906 um
- Scribe Line Width: 50 um
- Pad Metal: Al
- Metal Thickness: 4um
- Bonding Area:
  - Gate: 135*135
  - Drain: 3607*140
  - Source: 3333*135
- GDPW: 901 ea (E.E=2mm)

Static Electrical Characteristic (T_A = 25 °C unless otherwise noted)

Parameter	Symbol	Test Conditions	Value			Unit
			Min.	Typ.	Max.	
Drain-Source Breakdown Voltage	BV_{DSS}	V_G=-22 V, I_D=10 uA,	650			V
Gate Threshold Voltage	$V_{GS(th)}$	V_D=10V , I_D=1 mA	-18	-15	-12	V
Gate -Source Leakage Current	I_{GSS}	V_D= 0V, V_G=-22 V	-		100	nA
Drain-Source Leakage Current	I_{DSS}	V_D=650 V, V_G=-22 V	-		1.5	uA
Drain-Source on-state Resistance	$R_{DS(on)}$	I_D=2 A, V_G=0 V	-	100		mohm
Drain Current @T=25℃	I_D	V_D=10V, V_G=+1V	-	15	-	A

1) Performance will vary based on assembly technique and substrate of choice