

X1068

N-Channel Enhancement Mode MOSFET

19V(VDS) / ± 12 V(VGS) / 4A(ID)

Rev0.5



Wafer Specification

1. Order Information

Part No.	Description	Gross die / per 8" wafer
X1068	19V(V_{DS}) / $\pm 12V(V_{GS})$ / 4A(I_D) N-Channel Enhancement Mode MOSFET	60,000(Dual)

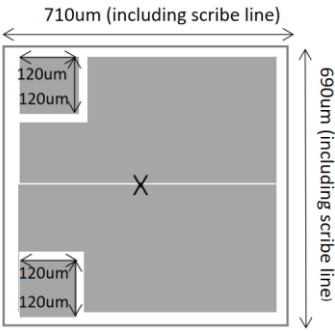
2. Mechanical Data

Nominal Back Metal Composition, Thickness	Ti-Ni-Ag (13kÅ°)
Nominal Front Metal Composition, Thickness	AlCu (4μm)
Wafer Diameter	200mm, with 010 notch
Wafer Thickness	125±10μm
Scribe Line Width	60μm
Passivation	SRO+SiN

3. Key Electrical Characteristics of Die (at $T_J = 25^\circ\text{C}$, unless otherwise specified)

Parameter	Description	Min.	Typ.	Max.	Unit	Test Conditions
V _{(BR)DSS}	Drain-to-Source Breakdown Voltage	19	20.5	-	V	V _{GS} =0V, I _D =250μA
I _D (Device Ref)	Continuous Drain Current	-	-	4	A	T _J =25°C
R _{DS(on)} (CP)	Static Drain-to-Source On-Resistance	-	17	25	mΩ	V _{GS} =4.5V, I _D =1A
		-	21	31	mΩ	V _{GS} =2.5V, I _D =1A
R _{DS(on)} (FT)	Static Drain-to-Source On-Resistance	-	20	29	mΩ	V _{GS} =4.5V, I _D =4A
		-	24	35	mΩ	V _{GS} =2.5V, I _D =3A
V _{GS(th)}	Gate Threshold Voltage	0.3	0.65	1.0	V	V _{DS} =V _{GS} , I _D =250μA
I _{DSS}	Drain-to-Source Leakage Current	-	-	1	μA	V _{DS} =18V, V _{GS} =0V
I _{GSS}	Gate-to-Source Leakage Current	-	-	±100	nA	V _{GS} =±12V, V _{DS} =0V
E _{AS}	Single Pulsed Avalanche Energy	-	-	10.9	mJ	L=0.5mH, V _{DD} =9V, V _{GS} =10V
C _{iss}	Input Capacitance	-	638	-	pF	V _{DS} =9V, V _{GS} =0V, f=1MHz
C _{oss}	Output Capacitance	-	100	-	pF	
C _{rss}	Reverse Transfer Capacitance	-	86	-	pF	
T _J , T _{STG}	Operating and Storage Temperature	-55°C to 150°C Max				

4. Die Outline

	Die Size: 710μm × 690μm (including scribe line)
	Gate: 120μm × 120μm
	For SOT23-6 package Suggest Bonding wire: Gate: 1 × 1.0 mil Cu *2 Source: 5 × 1.65 mil Cu *2