

X0131E

N-Channel Enhancement Mode MOSFET

20V(VDS) / ± 10 V(VGS) / 0.9A(ID)

Rev0.2



Wafer Specification

1. Order Information

Part No.	Description	Gross die / per 8" wafer
X0131E	20V(V_{DS}) / $\pm 10V(V_{GS})$ / 0.9A(I_D) / 2KV(HBM) N-Channel Enhancement Mode MOSFET	252,000

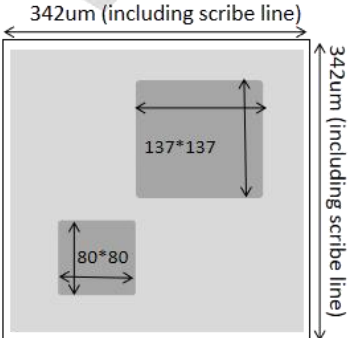
2. Mechanical Data

Nominal Back Metal Composition, Thickness	Ti-Ni-Ag-Sn (36kÅ°)
Nominal Front Metal Composition, Thickness	AlCu (4µm)
Wafer Diameter	200mm, with 010 notch
Wafer Thickness	125±10µm
Scribe Line Width	80µm
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	20	-	-	V	V _{GS} =0V, I _D =250μA
I _D (Device Ref)	Continuous Drain Current	-	-	0.9	A	T _J =25°C
R _{DS(on)} (FT)	Static Drain-to-Source On-Resistance	-	182	228	mΩ	V _{GS} =4.5V, I _D =0.5A
		-	222	278	mΩ	V _{GS} =2.5V, I _D =0.4A
V _{GS(th)}	Gate Threshold Voltage	0.3	0.7	1.5	V	V _{DS} =V _{GS} , I _D =250μA
I _{DSS}	Drain-to-Source Leakage Current	-	-	1	μA	V _{DS} =20V, V _{GS} =0V
I _{GSS}	Gate-to-Source Leakage Current	-	-	±10	μA	V _{GS} =±10V, V _{DS} =0V
C _{iss}	Input Capacitance	-	50	-	pF	V _{DS} =10V, V _{GS} =0V, f=1MHz
C _{oss}	Output Capacitance	-	20	-	pF	
C _{rss}	Reverse Transfer Capacitance	-	11	-	pF	
T _J , T _{STG}	Operating and Storage Temperature	-55°C to 150°C Max				

4. Die Outline

	Die Size: 342µm × 342µm (including scribe line)
	Gate: 80µm × 80µm
	For SOT-23 package Suggest Bonding wire: Gate: 1*0.8 mil Cu Source: 1*0.8 mil Cu