

X0109

N-Channel Enhancement Mode MOSFET

40V(VDS) / ± 25 V(VGS) / 190A(ID)

Rev0.1



Wafer Specification

1. Order Information

Part No.	Description	Gross die / per 8" wafer
X0109	40V(V_{DS}) / $\pm 25V(V_{GS})$ / 190A(I_D) N-Channel Enhancement Mode MOSFET	3,494

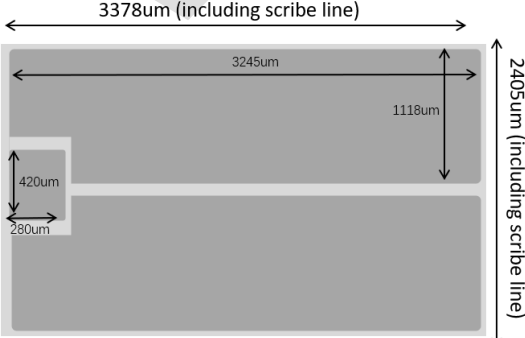
2. Mechanical Data

Nominal Back Metal Composition, Thickness	Ti-Ni-Ag (1kÅ°-2kÅ°-10kÅ°)
Nominal Front Metal Composition, Thickness	AlCu (4μm)
Wafer Diameter	200mm, with 010 notch
Wafer Thickness	150±10μm
Scribe Line Width	60μm
Passivation	SRO+SiN

3. Key Electrical Characteristics of Die (at Tj = 25 °C, unless otherwise specified)

Parameter	Description	Min.	Typ.	Max.	Unit	Test Conditions
$V_{(BR)DSS}$	Drain-to-Source Breakdown Voltage	40			V	$V_{GS}=0V$, $I_D=250\mu A$
I_D (Device Ref)	Continuous Drain Current			190	A	$T_J=25^\circ C$
$R_{DS(on)}(CP)$	Static Drain-to-Source On-Resistance		3.0	4.0	mΩ	$V_{GS}=10V$, $I_D=1A$
$R_{DS(on)}(FT)$	Static Drain-to-Source On-Resistance		3.4	4.4	mΩ	$V_{GS}10V$, $I_D=30A$
$V_{GS(th)}$	Gate Threshold Voltage	1	1.5	2.5	V	$V_{DS}=V_{GS}$, $I_D=250\mu A$
I_{DSS}	Drain-to-Source Leakage Current			1	μA	$V_{DS}=40V$, $V_{GS}=0V$
I_{GSS}	Gate-to-Source Leakage Current			±100	nA	$V_{GS}=\pm 25V$, $V_{DS}=0V$
T_J , T_{STG}	Operating and Storage Temperature	-55°C to 150°C Max				

4. Die Outline

	Die Size: 3378μm × 2405μm (including scribe line)
	Gate: 284μm × 420μm
	For TO-263 package Suggest Bonding wire : Gate: 1 × 42 μm Cu Source: 2 × 20 mil AL 