

XD0038

N-Channel Enhancement Mode MOSFET

500V(VDS) / ± 30 V(VGS) / 3A(ID)

Rev1.0



Wafer Specification

1. Order Information

Part No.	Description	Gross die / per 8" wafer
XD0038	500V(V_{DS}) / $\pm 30V(V_{GS})$ / 3A(I_D) N-Channel Enhancement Mode MOSFET	9,501

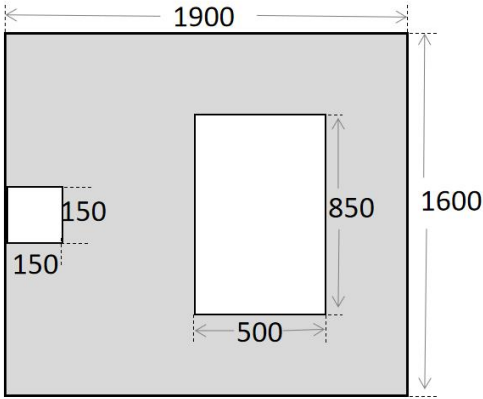
2. Mechanical Data

Nominal Back Metal Composition, Thickness	Ti-Ni-Ag (13kÅ°)
Nominal Front Metal Composition, Thickness	Al-Si-Cu (4µm)
Wafer Diameter	200mm, with 010 notch
Wafer Thickness	250±10µm
Scribe Line Width	60µm

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	500			V	$V_{GS}=0V$, $I_D=250\mu A$
I_D (Device Ref)	Continuous Drain Current			3	A	$T_J=25^\circ\text{C}$
$R_{DS(on)}$ (FT)	Static Drain-to-Source On-Resistance		2.6	3.0	Ω	$V_{GS}=10V$, $I_D=1A$
$V_{GS(th)}$	Gate Threshold Voltage	2	3	4	V	$V_{DS}=V_{GS}$, $I_D=250\mu A$
I_{DSS}	Drain-to-Source Leakage Current			1	µA	$V_{DS}=500V$, $V_{GS}=0V$
I_{GSS}	Gate-to-Source Leakage Current			±100	nA	$V_{GS}=\pm 30V$, $V_{DS}=0V$
T_J, T_{STG}	Operating Junction and Storage Temperature Range	-55°C to 150°C Max				

4. Die Outline

	Die Size: 1600µm × 1900µm (including scribe line)
	Gate Pad: 150µm × 150µm
	Source Pad: 850µm × 500µm
	For TO-220F Package Suggest Bonding wire: Gate: 1*1.5 mil Al Source: 1*20 mil Al