

X0129E

N-Channel Enhancement Mode MOSFET

18V(VDS) / ± 10 V(VGS) / 15A(ID)

Rev0.1



Wafer Specification

1. Order Information

Part No.	Description	Gross die / per 8" wafer
X0129E	18V(V_{DS}) / $\pm 10V(V_{GS})$ / 15A(I_D) N-Channel Enhancement Mode MOSFET	8,000

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 $T_J = 25^\circ\text{C}$, unless otherwise specified)

Parameter	Description	Min.	Typ.	Max.	Unit	Test Conditions
$V_{(BR)DSS}$	Drain-to-Source Breakdown Voltage	18			V	$V_{GS}=0V$, $I_D=250\mu A$
I_D (Device Ref)	Continuous Drain Current			15	A	$T_J=25^\circ\text{C}$
$R_{DS(on)}(CP)$	Static Drain-to-Source On-Resistance		5	6.8	mΩ	$V_{GS}=4.5V$, $I_D=0.5A$
			5.8	7.8	mΩ	$V_{GS}=2.5V$, $I_D=0.4A$
$R_{DS(on)}(FT)$	Static Drain-to-Source On-Resistance		5.2	7	mΩ	$V_{GS}=4.5V$, $I_D=0.5A$
			6	8	mΩ	$V_{GS}=2.5V$, $I_D=0.4A$
$V_{GS(th)}$	Gate Threshold Voltage	0.3	0.7	1.5	V	$V_{DS}=V_{GS}$, $I_D=250\mu A$
I_{DSS}	Drain-to-Source Leakage Current			1	μA	$V_{DS}=18V$, $V_{GS}=0V$
I_{GSS}	Gate-to-Source Leakage Current			±10	μA	$V_{GS}=\pm 10V$, $V_{DS}=0V$
T_J , T_{STG}	Operating and Storage Temperature	-55°C to 150°C Max				

4. Die Outline

	Die Size: 1424μm × 1044μm (including scribe line)
	Gate: 131μm × 131μm
	For TO-252 package Suggest Bonding wire: Gate: 1 × 1.0 mil Cu Source: 2 × 15 mil Al