

Y0023

P-Channel Enhancement Mode MOSFET

-20V(VDS) / ± 12 V(VGS) / -5.5A(ID)

Rev0.6



Wafer Specification

1. Order Information

Part No.	Description	Gross die / per 8" wafer
Y0023	-20V(V_{DS}) / $\pm 12V(V_{GS})$ / -5.5A(I_D) P-Channel Enhancement Mode MOSFET	43,878

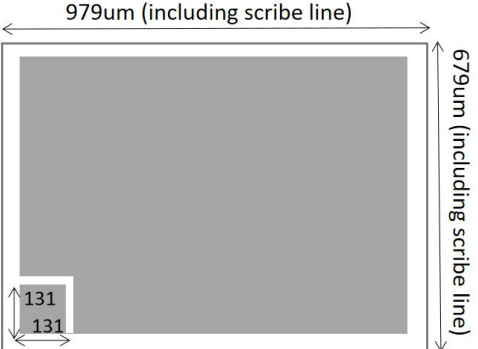
2. Mechanical Data

Nominal Back Metal Composition, Thickness	Ti-Ni-Ag (13kÅ°)
Nominal Front Metal Composition, Thickness	AlCu (4μm)
Wafer Diameter	200mm, with 010 notch
Wafer Thickness	125μm±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	-20			V	$V_{GS}=0V$, $I_D=-250\mu A$
$I_{D(\text{Device Ref})}$	Continuous Drain Current			-5.5	A	$T_J=25^\circ\text{C}$
$R_{DS(on)(CP)}$	Static Drain-to-Source On-Resistance		20	29	mΩ	$V_{GS}=-4.5V$, $I_D=-1A$
			27	37	mΩ	$V_{GS}=-2.5V$, $I_D=-1A$
$R_{DS(on)(FT)}$	Static Drain-to-Source On-Resistance		23	32	mΩ	$V_{GS}=-4.5V$, $I_D=-4A$
			30	40	mΩ	$V_{GS}=-2.5V$, $I_D=-3A$
$V_{GS(th)}$	Gate Threshold Voltage	-0.4	-0.65	-1.0	V	$V_{DS}=V_{GS}$, $I_D=-250\mu A$
I_{DSS}	Drain-to-Source Leakage Current			-1	μA	$V_{DS}=-17V$, $V_{GS}=0V$
I_{GSS}	Gate-to-Source Leakage Current			±100	nA	$V_{GS}=\pm 12V$, $V_{DS}=0V$
T_J, T_{STG}	Operating and Storage Temperature	-55°C to 150°C Max				

4. Die Outline

	Die Size: 979μm × 679μm (including scribe line)
	Gate: 131μm × 131μm
	For SOT23-3 package Suggest Bonding wire: Gate: 1 × 1.0 mil Cu Source: 5 × 1.65 mil Cu