

XG0021

N-Channel Enhancement Mode SGT MOSFET

200V(VDS) / ± 20 V(VGS) / 129A(ID)

Rev0.2

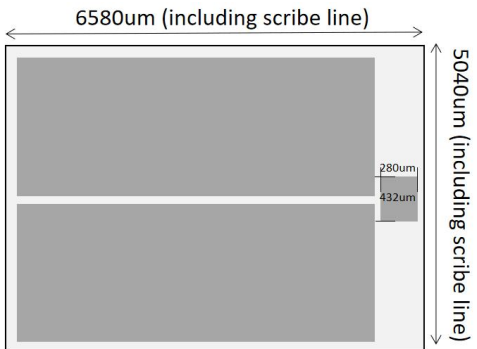
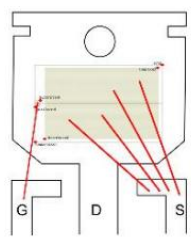


Wafer Specification

1. Order Information

Part No.	Description	Gross die / per 8" wafer
XG0021	200V(V_{DS}) / $\pm 20V(V_{GS})$/ 129A(I_D) N-Channel Enhancement Mode SGT MOSFET	820

2. Physical Characteristics

	Die Size: 6580 μ m $\times$ 5040 μ m (including scribe line)
	Gate: 280 μ m $\times$ 432 μ m
	For TO-220-3L package Suggest Bonding wire: Gate: 1 $\times$ 5 mil AL Source: 4 $\times$ 15 mil AL 

3. Mechanical Data

Nominal Back Metal Composition, Thickness	Ti-Ni-Ag (13kA°)
Nominal Front Metal Composition, Thickness	AlCu (4 μ m)
Wafer Diameter	200mm, with 010 notch
Wafer Thickness	200 μ m
Scribe Line Width	60 μ m
Passivation	SRO+SiN

4. Key Electrical Characteristics of Die (at $T_J = 25^\circ\text{C}$, unless otherwise specified)s

Parameter	Description	Min.	Typ.	Max.	Unit	Test Conditions
$V_{(BR)DSS}$	Drain-to-Source Breakdown Voltage	200			V	$V_{GS}=0V$, $I_D=250\mu A$
$I_{D(Device\ Ref)}$	Continuous Drain Current			129	A	$T_J=25^\circ\text{C}$
$R_{DS(on)(FT)}$	Static Drain-to-Source On-Resistance		9.4	10.9	m Ω	$V_{GS}=10V$, $I_D=20A$
$V_{GS(th)}$	Gate Threshold Voltage	2.5	3.3	4.5	V	$V_{DS}=V_{GS}$, $I_D=250\mu A$
I_{DSS}	Drain-to-Source Leakage Current			1	μA	$V_{DS}=160V$, $V_{GS}=0V$
I_{GSS}	Gate-to-Source Leakage Current			± 100	nA	$V_{GS}=\pm 20V$, $V_{DS}=0V$
T_J, T_{STG}	Operating and Storage Temperature	-55 $^\circ\text{C}$ to 150 $^\circ\text{C}$ Max				