

XG0023

N-Channel Enhancement Mode SGT MOSFET

150V(VDS) / ± 20 V(VGS) / 90A(ID)

Rev0.3

WANSSEM

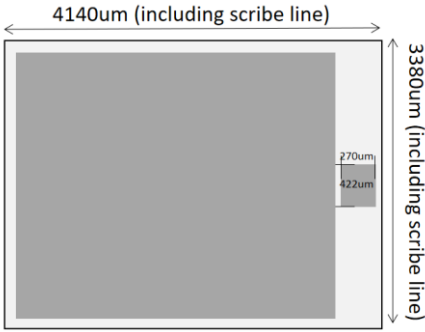
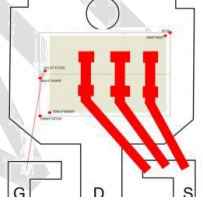


Wafer Specification

1. Order Information

Part No.	Description	Gross die / per 8" wafer
XG0023	150V(V_{DS}) / $\pm 20V(V_{GS})$/ 90A(I_D) N-Channel Enhancement Mode SGT MOSFET	2,039

2. Physical Characteristics

	Die Size: 4140 μ m $\times$ 3380 μ m (including scribe line)
	Gate: 270 μ m $\times$ 422 μ m
	For TO-220-3L package Suggest Bonding wire: Gate: 1 $\times$ 5 mil AL Source: 3 $\times$ 20 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

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	150			V	V _{GS} =0V, I _D =250μA
I _D (Device Ref)	Continuous Drain Current			90	A	T _J =25°C
R _{DS(on)} (FT)	Static Drain-to-Source On-Resistance		8.2	10	mΩ	V _{GS} =10V, I _D =20A
V _{GS(th)}	Gate Threshold Voltage	2.2	3.2	4.2	V	V _{DS} =V _{GS} , I _D =250μA
I _{DSS}	Drain-to-Source Leakage Current			1	μA	V _{DS} =150V, V _{GS} =0V
I _{GSS}	Gate-to-Source Leakage Current			±100	nA	V _{GS} =±20V, V _{DS} =0V
R _g	Gate Poly Resistance		3.7		Ω	V _{DS} =0V, V _{GS} =0, f=1MHZ
C _{iss}	Input Capacitance		3600		pF	V _{DS} =75V, V _{GS} =0, f=1MHZ
C _{OSS}	Output Capacitance		1800		pF	
C _{rSS}	Reverse Transfer Capacitance		150		pF	
T _J , T _{STG}	Operating and Storage Temperature	-55°C to 150°C Max				