

XG0045

N-Channel Enhancement Mode SGT MOSFET

80V(VDS) / ± 20 V(VGS) / 220A(ID)

Rev0.5

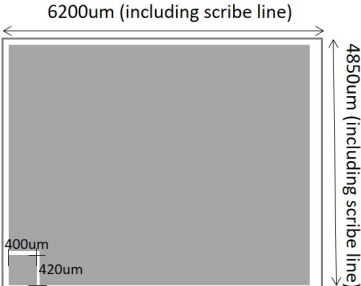
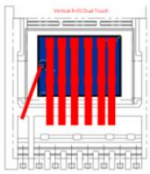


Wafer Specification

1. Order Information

Part No.	Description	Gross die / per 8" wafer
XG0045	80V(V_{DS}) / $\pm 20V(V_{GS})$/ 220A(I_D) N-Channel Enhancement Mode SGT MOSFET	899

2. Physical Characteristics

	Die Size: 6200 μ m $\times$ 4850 μ m (including scribe line)
	Gate: 400 μ m $\times$ 420 μ m
	For TOLL package Suggest Bonding wire: Gate: 1 $\times$ 5 mil AL Source: 6 $\times$ 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	175 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	80			V	V _{GS} =0V, I _D =250μA
I _D (Device Ref)	Continuous Drain Current			220	A	T _J =25°C
R _{DS(on)} (FT)	Static Drain-to-Source On-Resistance		1.0	1.35	mΩ	V _{GS} =10V, I _D =20A
V _{GS(th)}	Gate Threshold Voltage	2.0	3.0	4.0	V	V _{DS} =V _{GS} , I _D =250μA
I _{DSS}	Drain-to-Source Leakage Current			1	μA	V _{DS} =80V, V _{GS} =0V
E _{AS}	Single Pulsed Avalanche Energy			1056	mJ	L=0.5mH, VDD=40V
I _{GSS}	Gate-to-Source Leakage Current			±100	nA	V _{GS} =±20V, V _{DS} =0V
R _g	Gate Poly Resistance		3.9		Ω	V _{DS} =0V, V _{GS} =0,f=1MHZ
C _{iss}	Input Capacitance		15000		pF	V _{DS} =40V, V _{GS} =0, f=1MHZ
C _{oss}	Output Capacitance		2600		pF	
C _{rss}	Reverse Transfer Capacitance		60		pF	
T _J , T _{STG}	Operating and Storage Temperature	-55°C to 150°C Max				