

## N-Channel SGT Power MOSFET

### Features

- N-channel
- $V_{DS} = 85V$ ,  $I_D = 100A$   
 $R_{DS(ON)} < 7m\Omega @ V_{GS} = 10V$  (Typ:5.2m $\Omega$ )
- 100% avalanche tested
- Pb-free lead plating; RoHS compliant

### Application

- High performance SMPS, e.g. sync. rec.
- Hard Switching and High Speed Circuit
- Motor Control

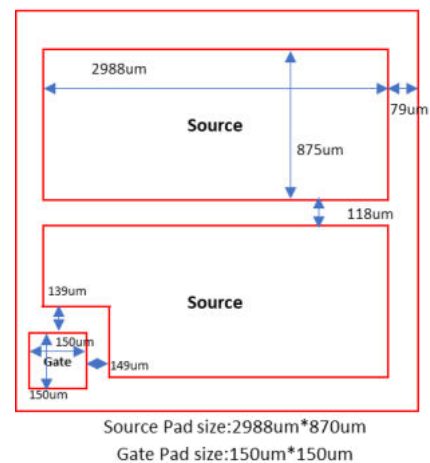
Wafer Size (inch)	8
Chip Size without scribe (mm)	3.14x2.01
Wafer Thickness (mil)	8
Top Metal	AlCu
Top Metal Thickness ( $\mu m$ )	4
Back Metal	Ti/Ni/Ag
Scribe Line ( $\mu m$ )	60
Gate Wire recommended	1*1.5mil Cu Wire
Source Wires recommended	15x 2mil Al Ribbon
Gross Die	4328

## 85V N-Ch Power MOSFET

Parameter	Value	Unit	
$V_{DS}$	85	V	
$R_{DS(on),typ}$	$V_{GS} = 10V$	5.2	m $\Omega$
$I_D$	100	A	

Unit:  $\mu m$

Die Size Without 60 $\mu m$  scribe line



**Electrical Characteristics at T<sub>j</sub>=25°C (unless otherwise specified)**
**Static Characteristics**

Parameter	Symbol	Test Condition	Value			Unit
			Min.	Typ.	Max.	
Drain to Source Breakdown Voltage	V <sub>(BR)DSS</sub>	V <sub>GS</sub> =0V, I <sub>D</sub> =250μA	85	94		V
Gate Threshold Voltage	V <sub>GS(th)</sub>	V <sub>GS</sub> =V <sub>DS</sub> , I <sub>D</sub> =250μA	1.0	3.0	4.0	V
Zero Gate Voltage Drain Current	I <sub>DSS</sub>	V <sub>GS</sub> =0V, V <sub>DS</sub> =85V, T <sub>j</sub> =25°C	-	0.002	1	μA
		V <sub>GS</sub> =0V, V <sub>DS</sub> =85V, T <sub>j</sub> =100°C		-	100	
Gate to Source Leakage Current	I <sub>GSS</sub>	V <sub>GS</sub> =±20V, V <sub>DS</sub> =0V	-	4.0	±100	nA
Drain to Source on Resistance	R <sub>DS(on)</sub>	V <sub>GS</sub> =10V, I <sub>D</sub> =20A	-	5.2	7.0	mΩ
		V <sub>GS</sub> =4.5V, I <sub>D</sub> =20A	-	-	-	
Gate Resistance	R <sub>G</sub>	V <sub>GS</sub> =0V, V <sub>DS</sub> =0V, f=1MHz	-	-	-	Ω