N-Channel SGT Power MOSFET

100V N-Ch Power MOSFET

Features

- N-channel
- V_{DS} =100V, I_D =100A
  $R_{DS(ON)}$ < 8mΩ @ V_{GS}=10V (Typ:6.3mΩ)
- 100% avalanche tested
- Pb-free lead plating; RoHS compliant

Parameter		Value	Unit
V_{DS}		100	V
RDS(on),typ	VGS=10V	6.3	mΩ
I_D		100	A

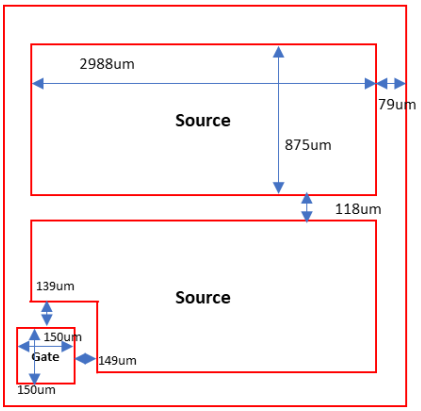
Application

- 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 (μm)	4
Back Metal	Ti/Ni/Ag
Scribe Line (μm)	60
Gate Wire recommended	1*1.5mil Cu Wire
Source Wires recommended	15x 2mil Al Ribbon
Gross Die	4328

Unit: um

Die Size Without 60um scribe line



Source Pad size:2988um*870um

Gate Pad size:150um*150um

Electrical Characteristics at Tj=25℃ (unless otherwise specified)

Static Characteristics

Parameter	Symbol	Test Condition	Value			Unit
			Min.	Typ.	Max.	
Drain to Source Breakdown Voltage	$V_{(BR)DSS}$	V_{GS}=0V, I_D=250μA	100	108		V
Gate Threshold Voltage	$V_{GS(th)}$	V_{GS}=V_{DS}, I_D=250μA	1.2	1.7	2.2	V
Zero Gate Voltage Drain Current	I_{DSS}	V_{GS}=0V, V_{DS}=100V, T_j=25℃	-	0.01	1	μA
		V_{GS}=0V, V_{DS}=100V, T_j=100℃		-	100	
Gate to Source Leakage Current	I_{GSS}	V_{GS}=±20V, V_{DS}=0V	-	1.4	±100	nA
Drain to Source on Resistance	$R_{DS(on)}$	V_{GS}=10V, I_D=20A	-	6.3	8.0	mΩ
		V_{GS}=4.5V, I_D=20A	-	8.6	11	
Gate Resistance	R_G	V_{GS}=0V, V_{DS}=0V, f=1MHz	-	-	-	Ω