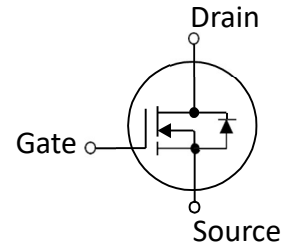


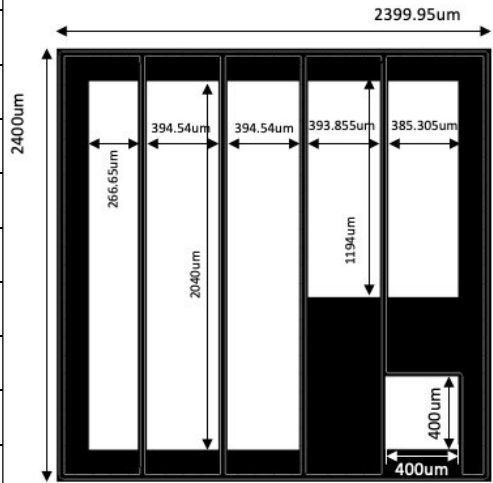
**30V, 70A <sup>(1)</sup> N-Channel MOSFET**

- Advanced Split Gate Device Design and Processes
- High Reliability Capability
- Sampled CP Probing and Inking

**SYMBOL**

**Electrical Characteristics in C/P Test (T<sub>J</sub> at 25 °C)**

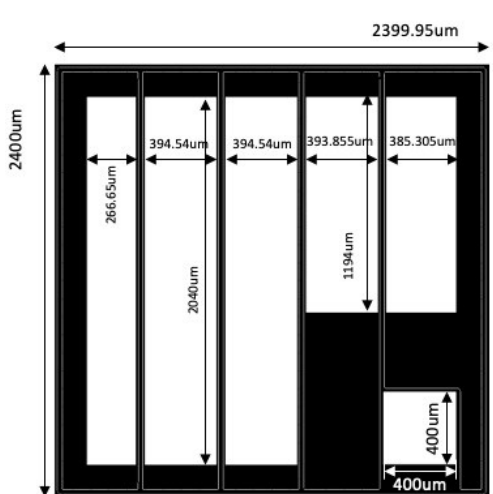
Symbol	Parameter	Min.	Typ.	Max.	Unit	Test Condition
V <sub>(BR)DSS</sub>	Drain-Source Breakdown Voltage	30	—	—	V	V <sub>GS</sub> = 0V, I <sub>D</sub> = 250μA
R <sub>DS(ON)</sub>	Static Drain-Source On-Resistance	—	1.1	1.6	mΩ	V <sub>GS</sub> = 5V, I <sub>D</sub> = 1A <sup>(2)</sup>
V <sub>GS(th)</sub>	Gate Threshold Voltage	1	—	2.5	V	V <sub>DS</sub> = V <sub>GS</sub> , I <sub>D</sub> = 250μA
I <sub>DSS</sub>	Drain-to-Source Leakage Current	—	—	1	μA	V <sub>DS</sub> = 25V, V <sub>GS</sub> = 0V
I <sub>GSS</sub>	Gate-to-Source Leakage Current	-100	—	100	nA	V <sub>DS</sub> = 0V, V <sub>GS</sub> = ±12V
T <sub>J</sub> , T <sub>STG</sub>	Operating and Storage Temperature	-55°C to 150°C Max.				

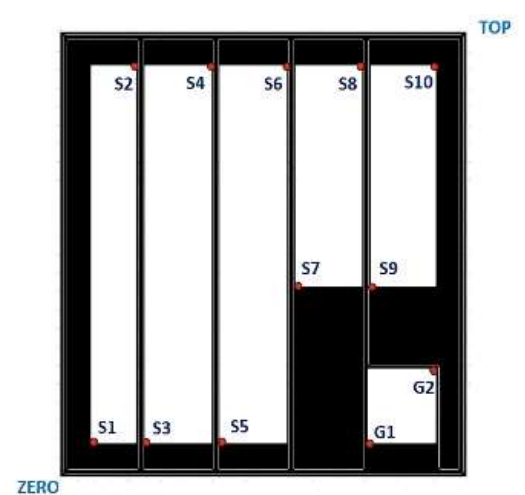
**Mechanical Data**
**Die Drawing**

Chip Size	2400 μm X 2400 μm	
Gate Pad Size	400 μm X 400 μm	
Source Pad Size(1)	267 μm X 2040 μm	
Source Pad Size(2)(3)	395 μm X 2040 μm	
Source Pad Size(4)	394 μm X 1194 μm	
Source Pad Size(5)	385 μm X 1194 μm	
Scribe Line Width	60 μm	
Wafer Thickness	100 μm	
Wafer Diameter	200 mm	
Gross Die	4702 EA	
Source Metallization	Ti-NiV-Ag / 1-3-1.5kA	
Drain Metallization	Ti-Ni-Ag	
Passivation	Polymide	
Recommended Storage Environment	Store in original container, in dry nitrogen, 6 months at ambient temperature of 23°C ± 3°C	

(1) This characteristic assumes the die is assembled in DFN5\*6 package. Actual performance may degrade when assembled.

(2) Pulse Width tp = < 1 mS, Duty Cycle < 2%.

Specific Assembly Information Bill of Material (BOM)		Die Drawing
Package Type	DFN5*6	
Die Attach Method	Soft solder	
Soft Solder Composition	Pb,Sn,Ag	
Gate Wire Bonding	Au, 2 mil x1	
Source Wire Bonding	Cu, clip	
Molding Compound Manufacturer	G700HF	
Solder Plating Composition	Pure Tin	

Position			Bonding Diagram Top View
	X (μm)	Y (μm)	
ZERO	0	0	
TOP	2400	2400	
S1	180	180	
S2	446.65	2220	
S3	497.93	180	
S4	892.47	2220	
S5	943.76	180	
S6	1338.3	2220	
S7	1389.6	1026	
S8	1783.4	2220	
S9	1834.7	1026	
S10	2220	2220	
G1	1819.2	180.55	
G2	2219.2	580.55	

<b>Electrical Characteristics in F/T Test (T<sub>J</sub> at 25 °C)</b>						
Symbol	Parameter	Min.	Typ.	Max.	Unit	Test Condition
I <sub>DSS</sub>	Drain-to-Source Leakage Current	—	—	1	μA	V <sub>DS</sub> =25V, V <sub>GS</sub> =0V
I <sub>GSSF</sub>	Gate-Body Leakage Current	—	—	100	nA	V <sub>DS</sub> =0V, V <sub>GS</sub> =+12V
I <sub>GSSR</sub>	Gate-Body Leakage Current	-100	—	—	nA	V <sub>DS</sub> =0V, V <sub>GS</sub> =-12V
BV <sub>DSS</sub>	Drain-Source Breakdown Voltage	30	—	—	V	V <sub>GS</sub> =0V, I <sub>D</sub> =250μA
BV <sub>DSS</sub>	Drain-Source Breakdown Voltage	30	—	—	V	V <sub>GS</sub> =0V, I <sub>D</sub> =1mA
R <sub>DS(ON)</sub>	Static Drain-Source On-Resistance	—	—	1.9	mΩ	V <sub>GS</sub> =5V, I <sub>D</sub> =20A
V <sub>GS(th)</sub>	Gate Threshold Voltage	1	—	2.5	V	V <sub>DS</sub> =V <sub>GS</sub> , I <sub>D</sub> =250μA
V <sub>SD</sub>	Body Diode Forward Voltage	—	—	1.1	V	V <sub>GS</sub> =0V, I <sub>SD</sub> =10A
I <sub>AS</sub>	Avalanche Current				A	V <sub>DD</sub> =25V, V <sub>GS</sub> =10V, R <sub>G</sub> =25Ω, L=0.5mH
T <sub>J</sub> , T <sub>STG</sub>	Operating and Storage Temperature	-55	—	150	°C	

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