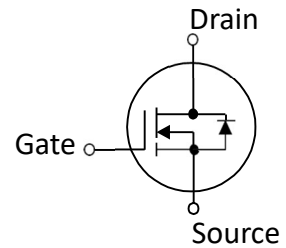


25V N-Channel MOSFET

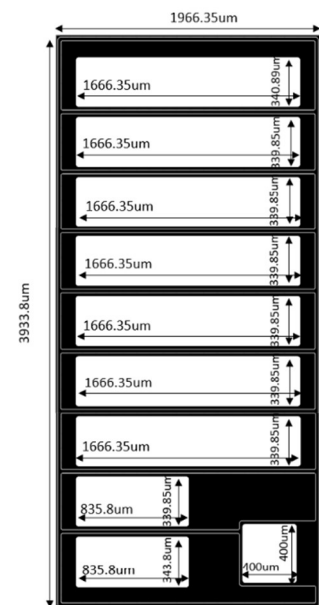
- Advanced Split Gate Device Design and Processes
- High Reliability Capability
- Sampled CP Probing

SYMBOL

Electrical Characteristics in C/P Test (T_J at 25 °C)

Symbol	Parameter	Min.	Typ.	Max.	Unit	Test Condition
V _{(BR)DSS}	Drain-Source Breakdown Voltage	25	—	—	V	V _{GS} = 0V, I _D = 250μA
R _{DS(ON)}	Static Drain-Source On-Resistance	—	0.7	1.1	mΩ	V _{GS} = 5V, I _D = 1A ⁽¹⁾
V _{GS(th)}	Gate Threshold Voltage	1	—	2.3	V	V _{DS} = V _{GS} , I _D = 250μA
I _{DSS}	Drain-to-Source Leakage Current	—	—	1	μA	V _{DS} = 25V, V _{GS} = 0V
I _{GSS}	Gate-to-Source Leakage Current	-100	—	100	nA	V _{DS} = 0V, V _{GS} = ±12V
T _J , T _{STG}	Operating and Storage Temperature	-55°C to 150°C Max.				

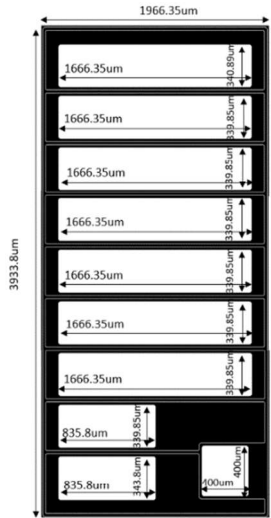
Mechanical Data
Die Drawing


Chip Size ⁽²⁾	1966 μm X 3934 μm
Gate Pad Size	400 μm X 400 μm
Source Pad Size	1666 μm X 341 μm 1666 μm X 340 μm x 6 836 μm X 340 μm 836 μm X 344 μm
Scribe Line Width	60 μm
Wafer Thickness	100 μm
Wafer Diameter	200 mm
Gross Die	3504 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) Pulse Width tp = < 1 mS, Duty Cycle < 2%.

(2) Chip size not include scribe line.

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	Cu, 2 mil x 1	
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	1966.4	3933.8	
S1	150	150	
S2	985.8	493.8	
S3	150	565.07	
S4	985.8	904.92	
S5	150	976.19	
S6	1816.4	1316	
S7	150	1387.3	
S8	1816.4	1727.2	
S9	150	1798.4	
S10	1816.4	2138.3	
S11	150	2209.6	
S12	1816.4	2549.4	
S13	150	2620.7	
S14	1816.4	2960.5	
S15	150	3031.8	
S16	1816.4	3371.6	
S17	150	3442.9	
S18	1816.4	3783.8	
G1	1385.8	180.78	
G2	1785.8	580.78	

Electrical Characteristics in F/T Test (T_J at 25 °C)						
Symbol	Parameter	Min.	Typ.	Max.	Unit	Test Condition
I _{DSS}	Drain-to-Source Leakage Current	—	—	1	μA	V _{DS} =25V, V _{GS} =0V
I _{GSSF}	Gate-to-Source Leakage Current	—	—	100	nA	V _{DS} =0V, V _{GS} =+12V
I _{GSSR}	Gate-to-Source Leakage Current	-100	—	—	nA	V _{DS} =0V, V _{GS} =-12V
BV _{DSS}	Drain-Source Breakdown Voltage	25	—	—	V	V _{GS} =0V, I _D =250μA
BV _{DSS}	Drain-Source Breakdown Voltage	25	—	—	V	V _{GS} =0V, I _D =1mA
R _{DS(ON)}	Static Drain-Source On-Resistance	—	—	1.4	mΩ	V _{GS} =5V, I _D =20A
V _{GS(th)}	Gate Threshold Voltage	1	—	2.3	V	V _{DS} =V _{GS} , I _D =250μA
V _{SD}	Body Diode Forward Voltage	—	—	1.2	V	V _{GS} =0V, I _{SD} =20A
I _{AS}	Avalanche Current				A	V _{DD} =25V, V _{GS} =10V, R _G =25Ω, L=0.1mH
T _J , T _{STG}	Operating and Storage Temperature	-55	—	150	°C	

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