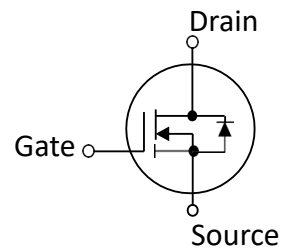
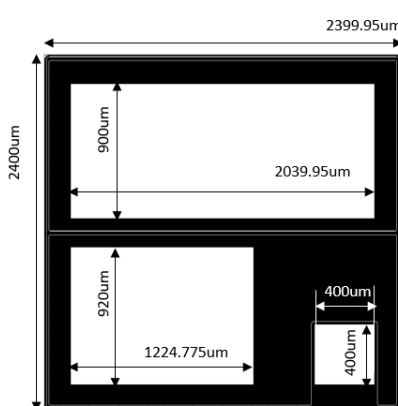


25V N-Channel MOSFET

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

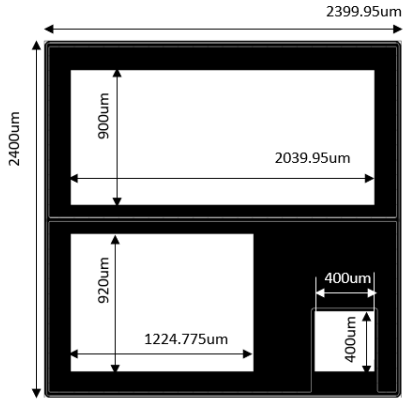
SYMBOL

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

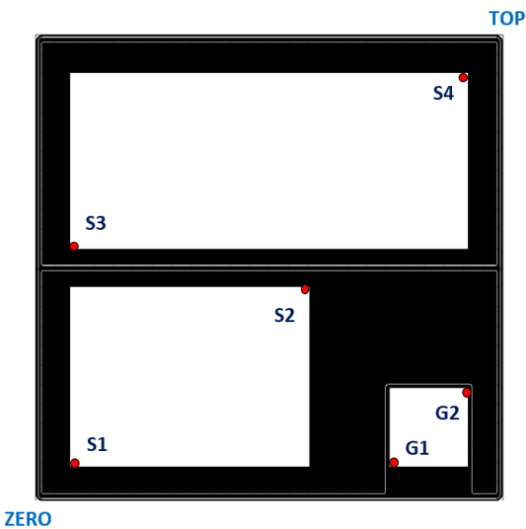
Symbol	Parameter	Min.	Typ.	Max.	Unit	Test Condition
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	25	—	—	V	$V_{GS} = 0V, I_D = 250\mu A$
$R_{DS(ON)}$	Static Drain-Source On-Resistance	—	1.1	1.4	m Ω	$V_{GS} = 4.5V, I_D = 1A^{(2)}$
$V_{GS(th)}$	Gate Threshold Voltage	1	—	2.5	V	$V_{DS} = V_{GS}, I_D = 250\mu A$
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	$V_{DS} = 0V, V_{GS} = \pm 12V$
T_J, T_{STG}	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	2040 X 900 μm 1225 X 920 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	Polyimide	
Recommended Storage Environment	Store in original container, in dry nitrogen, 6 months at ambient temperature of 23°C \pm 3°C	

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

(2) Pulse Width $t_p = < 1$ 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	Cu, 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	2399.95	2400	
S1	180	180	
S2	1404.775	1100	
S3	180	1300	
S4	2219.95	2200	
G1	1819.175	180.55	
G2	2219.175	580.55	

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-Body Leakage Current	—	—	100	nA	V _{DS} =0V, V _{GS} =+12V
I _{GSSR}	Gate-Body 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	—	—	1.9	mΩ	V _{GS} =4.5V, I _D =20A
V _{GS(th)}	Gate Threshold Voltage	1	—	2.5	V	V _{DS} =V _{GS} , I _D =250μA
V _{SD}	Body Diode Forward Voltage	—	—	1.1	V	V _{GS} =0V, I _{SD} =10A
I _{AS}	Avalanche Current				A	V _{DD} =25V, V _{GS} =10V, R _G =25Ω, L=0.5mH
T _J , T _{STG}	Operating and Storage Temperature	-55	—	150	°C	

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