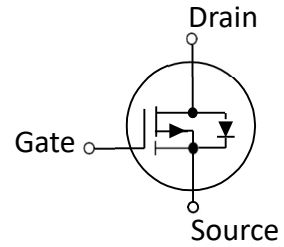
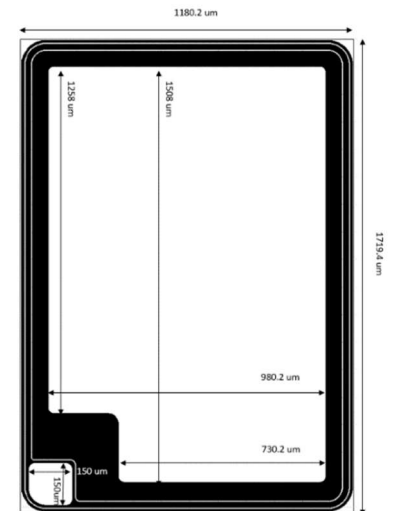


30V P-Channel MOSFET
SYMBOL

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	-30	—	—	V	$V_{GS} = 0V, I_D = -250\mu A$
$R_{DS(ON)}$	Static Drain-Source On-Resistance	—	10	13	m Ω	$V_{GS} = 10V, I_D = -1A^{(2)}$
$R_{DS(ON)}$	Static Drain-Source On-Resistance	—	15.7	20	m Ω	$V_{GS} = 4.5V, I_D = -1A^{(2)}$
$V_{GS(th)}$	Gate Threshold Voltage	-1.2	—	-2.5	V	$V_{DS} = V_{GS}, I_D = -250\mu A$
I_{DSS}	Drain-to-Source Leakage Current	—	—	-1	μA	$V_{DS} = -30V, V_{GS} = 0V$
I_{GSS}	Gate-to-Source Leakage Current	-100	—	100	nA	$V_{DS} = 0V, V_{GS} = \pm 20V$
T_J, T_{STG}	Operating and Storage Temperature	-55°C to 150°C Max.				

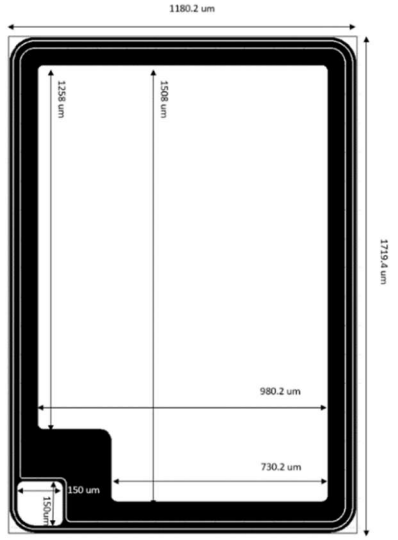
Mechanical Data
Die Drawing


Chip Size	1719 μm X 1180 μm
Gate Pad Size	150 μm X 150 μm
Source Pad Size	1508 μm X 980 μm
Scribe Line Width	60 μm
Wafer Thickness	150 μm
Wafer Diameter	200 mm
Gross Die	13104 EA
Source Metallization	Al-Cu (4 μm typical)
Drain Metallization	Ti-Ni-Ag
Passivation	SiN
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 SOP-8 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, 2 mil x8	
Molding Compound Manufacturer	G700HF	
Solder Plating Composition	Pure Tin	

Position			Bonding Diagram Top View
	X (um)	Y (um)	
ZERO	0	0	
TOP	1719.4	1180.2	
S1	100	100	
S2	1358	350	
S3	1608	1080.2	
G1	1541.55	31.15	
G2	1691.55	181.15	

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	$V_{DS} = -30\text{V}, V_{GS} = 0\text{V}$
I_{GSSF}	Gate-to-Source Leakage Current	—	—	100	nA	$V_{DS} = 0\text{V}, V_{GS} = +20\text{V}$
I_{GSSR}	Gate-to-Source Leakage Current	—	—	-100	nA	$V_{DS} = 0\text{V}, V_{GS} = -20\text{V}$
BV_{DSS}	Drain-Source Breakdown Voltage	-30	—	—	V	$V_{GS} = 0\text{V}, I_D = -250\mu\text{A}$
BV_{DSS}	Drain-Source Breakdown Voltage	-30	—	—	V	$V_{GS} = 0\text{V}, I_D = -1\text{mA}$
$R_{DS(ON)}$	Static Drain-Source On-Resistance	—	—	15	m Ω	$V_{GS} = -10\text{V}, I_D = -8\text{A}$
$R_{DS(ON)}$	Static Drain-Source On-Resistance	—	—	25	m Ω	$V_{GS} = -4.5\text{V}, I_D = -6\text{A}$
$V_{GS(th)}$	Gate Threshold Voltage	-1.2	—	-2.5	V	$V_{DS} = V_{GS}, I_D = -250\mu\text{A}$
V_{SD}	Body Diode Forward Voltage	—	—	-1.2	V	$V_{GS} = 0\text{V}, I_{SD} = -8\text{A}$
I_{AS}	Avalanche Current				A	$V_{DD} = 25\text{V}, V_{GS} = 10\text{V}, R_G = 25\Omega, L = 0.5\text{mH}$
T_J, T_{STG}	Operating and Storage Temperature	-55	—	150	$^{\circ}\text{C}$	

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