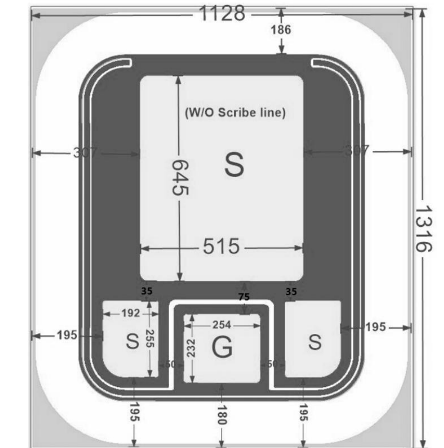
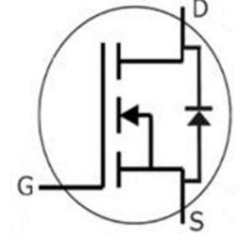
Physical Characteristics



Die size：1128 μm x 1316 μm (without scribe line)
Gate pad：254 μm x 232 μm
Gross die / per 6” wafer = 9278 pcs

Main characteristics：
V_{DS} = 1700V
$I_D(T_C=25°C)$ = 8.7A
$R_{DS(on)MAX}$ = 1.4Ω@18V



Mechanical Data

Parameter	Parameter
Nominal Back Metal Composition, Thickness	Ti- Ni - Ag
Nominal Front Metal Composition, Thickness	Al(4μm)
Wafer Diameter	150mm
Wafer Thickness	175μm±10μm
Scribe line width	80μm

Absolute Maximum Ratings(T_C=25°C,unless otherwise specified)

Parameter	Symbol	Test Condition	Value	Unit
Drain-Source Voltage	V_{DS}	V_{GS} = 0V, I_D = 100μA	1700	V
Gate-Source Voltage	V_{GSmax}	AC (f > 1 Hz)	-10/+25	V
Gate-Source Voltage	V_{GSOP}	Static	-4/+18	V
Continuous Drain Current	I_D	V_{GS} = 18V, T_C=25℃	8.7	A
	I_D	V_{GS} = 18V, T_C=100℃	6	
Pulsed Drain Current	$I_{D,pulse}$	Pulse with t_p limited by T_{jmax} at 1ms Pulse with t_p limited by T_{jmax} at 100μs	9 16	A
Junction Temperature	T_J		-55~ +175	℃
Storage Temperature	T_{STG}		-55~ +175	℃

Note 1: Assumes a $R_{th(jc)}$ will be less than 1.6 K/W.

Electrical characteristics (T_j=25℃, unless otherwise noted)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Static Characteristics						
Drain-source breakdown voltage	$V_{(BR)DSS}$	V_{GS} = 0V, I_D =100μA	1700			V
Zero gate voltage drain current	I_{DSS}	V_{DS} =1700V,V_{GS} = 0V		1	50	μA
Gate-Source leakage current	I_{GSS}	V_{GS} =18V, V_{DS} = 0V			250	nA
Gate threshold voltage	$V_{GS(th)}$	V_{DS} =V_{GS}, I_D =0.5mA		2.8		V
		V_{DS} =V_{GS}, I_D =0.5mA,T_j = 175℃		2.0		
Drain-source on-resistance	$R_{DS(on)}$	V_{GS} =18V, I_D =2A		0.9	1.4	Ω
		V_{GS} =20V, I_D =2A		0.8		
		V_{GS} =20V, I_D =2A,T_j = 175℃		2		
Transconductance	g_{fs}	V_{DS} =18V, I_D =2A		1		S
		V_{DS} =18V, I_D =2A,T_j = 175℃		0.8		
Dynamic characteristics						
Input Capacitance	C_{iss}	V_{DS} =1000V,V_{GS} =0V,f =1MHz V_{AC} = 25mV		168		pF
Output Capacitance	C_{oss}			13		
Reverse Transfer Capacitance	C_{rss}			2.7		
Total Gate Charge	Q_g	V_{DS} =1200V,I_D =2A V_{GS} =-4V/18V		15		nC
Gate-Source Charge	Q_{gs}			1.7		
Gate-Drain Charge	Q_{gd}			9		
Internal Gate Resistance	$R_{G(int)}$	f=1 MHz, V_{AC}=25mV		6		Ω
Source-Drain Diode characteristics						
Diode Forward Current	I_S	V_{GS} =-4V,T_C=25℃		8		A
Diode Forward voltage	V_{SD}	V_{GS} =-4V, I_{SD}= 1A		3.7		V
		V_{GS} =-4V, I_{SD}= 1A,T_J=175℃		3.3		V
Diode Pulse Current	$I_{S,pulse}$	V_{GS} = -4V, pulse width t_p limited by T_{jmax}		9		A