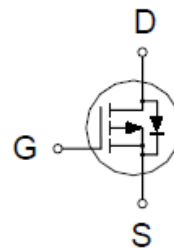
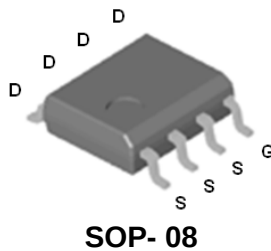


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PRODUCT SUMMARY

$V_{(BR)DSS}$	$R_{DS(ON)}$	I_D
-30V	28mΩ @ $V_{GS} = -10V$	-6A



ABSOLUTE MAXIMUM RATINGS ($T_A = 25\text{ }^{\circ}\text{C}$ Unless Otherwise Noted)

PARAMETERS/TEST CONDITIONS		SYMBOL	LIMITS	UNITS
Drain-Source Voltage		V_{DS}	-30	V
Gate-Source Voltage		V_{GS}	±20	
Continuous Drain Current	$T_A = 25\text{ }^{\circ}\text{C}$	I_D	-6	A
	$T_A = 70\text{ }^{\circ}\text{C}$		-4.7	
Pulsed Drain Current ¹		I_{DM}	-24	
Avalanche Current		I_{AS}	-19.3	
Avalanche Energy	L=0.1mH	E_{AS}	18.6	mJ
Power Dissipation	$T_A = 25\text{ }^{\circ}\text{C}$	P_D	1.7	W
	$T_A = 70\text{ }^{\circ}\text{C}$		1.1	
Junction & Storage Temperature Range		T_J, T_{STG}	-55 to 150	$^{\circ}\text{C}$

THERMAL RESISTANCE RATINGS

THERMAL RESISTANCE	SYMBOL	TYPICAL	MAXIMUM	UNITS
Junction-to-Ambient ²	$R_{\theta JA}$		72	$^{\circ}\text{C} / \text{W}$

¹Pulse width limited by maximum junction temperature.

²The value of $R_{\theta JA}$ is measured with the device mounted on 1in² FR-4 board with 2oz.Copper.in a still air environment with $T_A=25^{\circ}\text{C}$.

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ELECTRICAL CHARACTERISTICS (T_J = 25 °C, Unless Otherwise Noted)

PARAMETER	SYMBOL	TEST CONDITIONS	LIMITS			UNITS
			MIN	TYP	MAX	
STATIC						
Drain-Source Breakdown Voltage	V _{(BR)DSS}	V _{GS} = 0V, I _D = -250μA	-30			V
Gate Threshold Voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D = -250μA	-0.8	-1.5	-2.5	
Gate-Body Leakage	I _{GSS}	V _{DS} = 0V, V _{GS} = ±20V			±100	nA
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} = -24V, V _{GS} = 0V			-1	μA
		V _{DS} = -20V, V _{GS} = 0V , T _J = 55 °C			-10	
Drain-Source On-State Resistance ¹	R _{DS(ON)}	V _{GS} = -4.5V, I _D = -6A		32	45	mΩ
		V _{GS} = -10V, I _D = -6A		22	28	
Forward Transconductance ¹	g _{fs}	V _{DS} = -5V, I _D = -6A		22		S
DYNAMIC						
Input Capacitance	C _{iss}	V _{GS} = 0V, V _{DS} = -15V, f = 1MHz		846		pF
Output Capacitance	C _{oss}			120		
Reverse Transfer Capacitance	C _{rss}			106		
Gate Resistance	R _g	V _{GS} = 0V, V _{DS} = 0V, f = 1MHz		11		Ω
Total Gate Charge ²	Q _g	V _{DS} = -15V I _D = -6A, V _{GS} = -10V		20		nC
Gate-Source Charge ²	Q _{gs}			2.4		
Gate-Drain Charge ²	Q _{gd}			4.8		
Turn-On Delay Time ²	t _{d(on)}	V _{DD} = -15V, I _D ≅ -6A, V _{GS} = -10V,R _{GEN} = 6Ω		10.4		nS
Rise Time ²	t _r			7.8		
Turn-Off Delay Time ²	t _{d(off)}			22		
Fall Time ²	t _f			7		
SOURCE-DRAIN DIODE RATINGS AND CHARACTERISTICS (T _J = 25 °C)						
Continuous Current	I _S				-1.7	A
Forward Voltage ¹	V _{SD}	I _F = -6A, V _{GS} = 0V			-1	V
Reverse Recovery Time	t _{rr}	I _F = -6A, dI/dt = 100A / μS		12.2		nS
Reverse Recovery Charge	Q _{rr}			3.5		nC

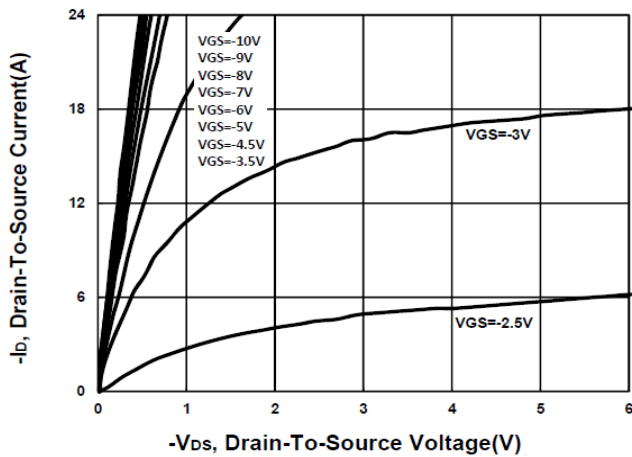
¹Pulse test : Pulse Width ≤ 300 μsec, Duty Cycle ≤ 2%.

²Independent of operating temperature.

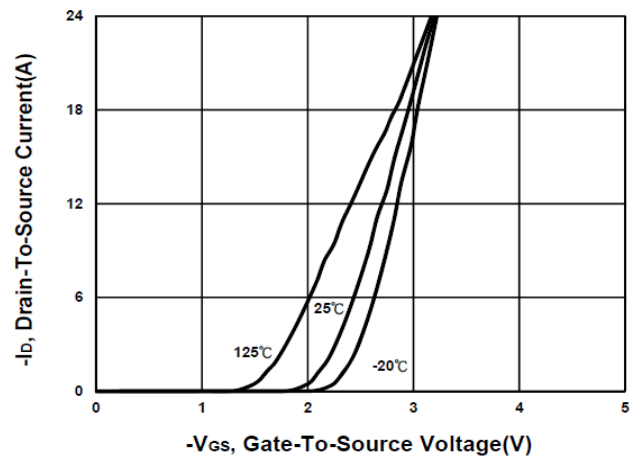
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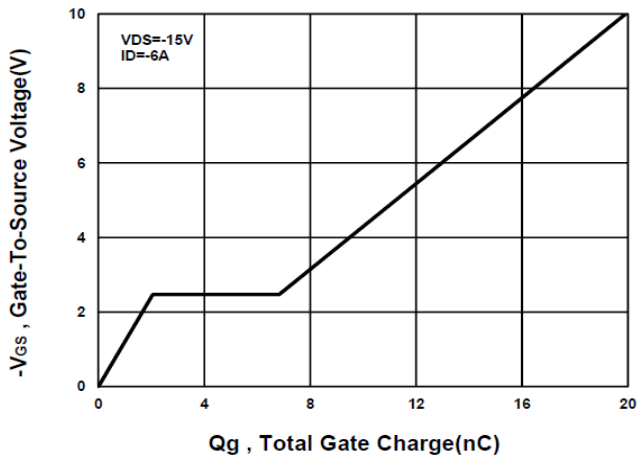
Output Characteristics



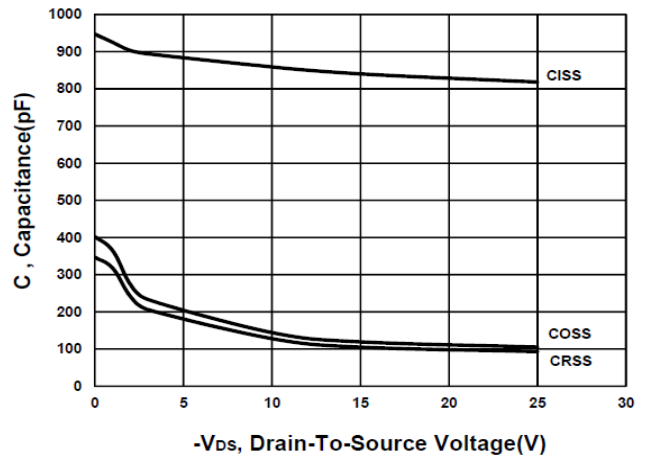
Transfer Characteristics



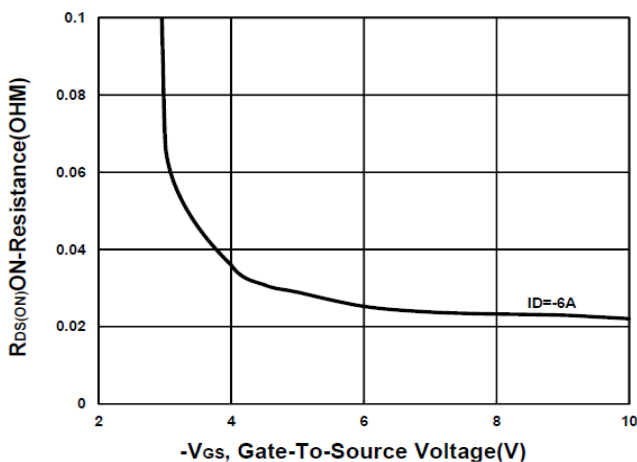
Gate charge Characteristics



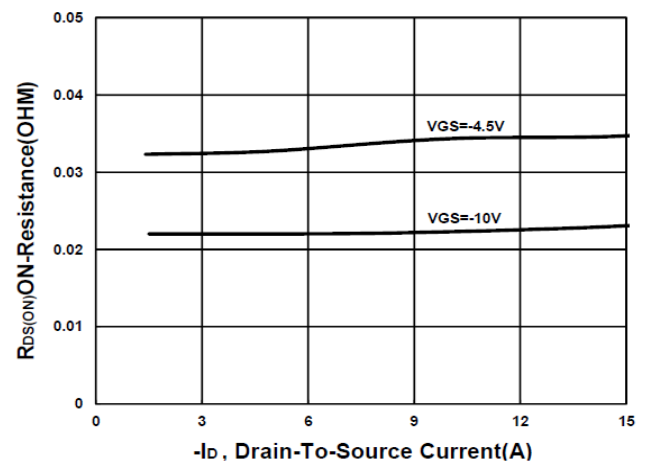
Capacitance Characteristic



On-Resistance VS Gate-To-Source



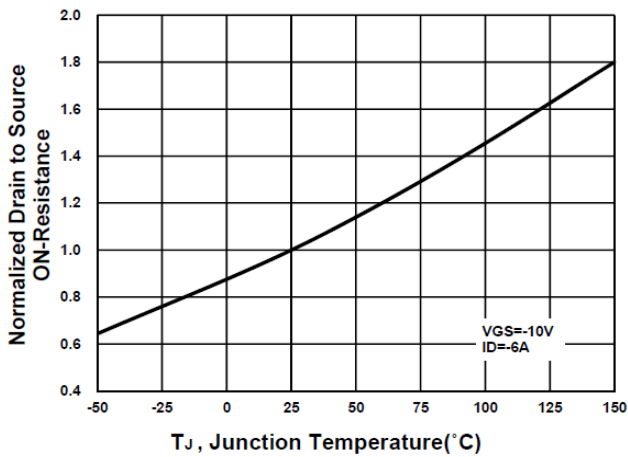
On-Resistance VS Drain Current



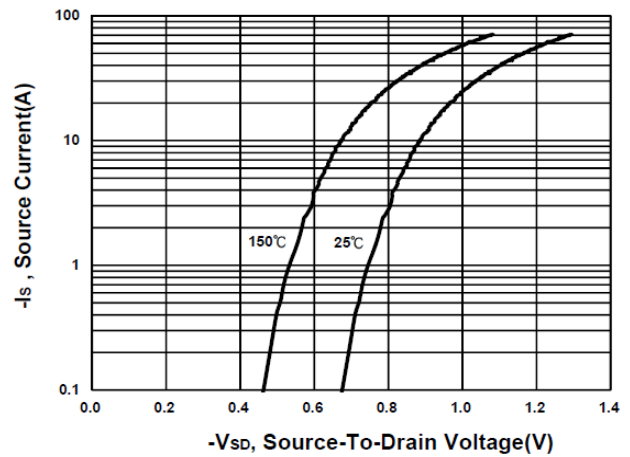
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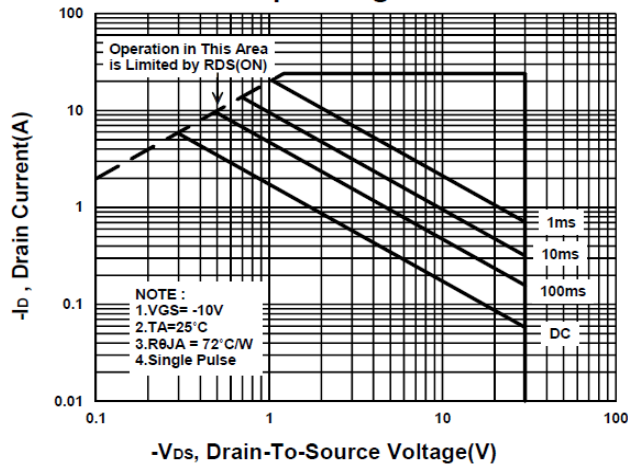
On-Resistance VS Temperature



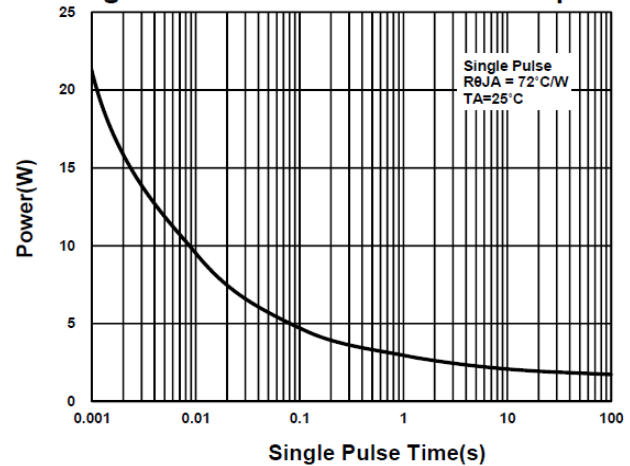
Source-Drain Diode Forward Voltage



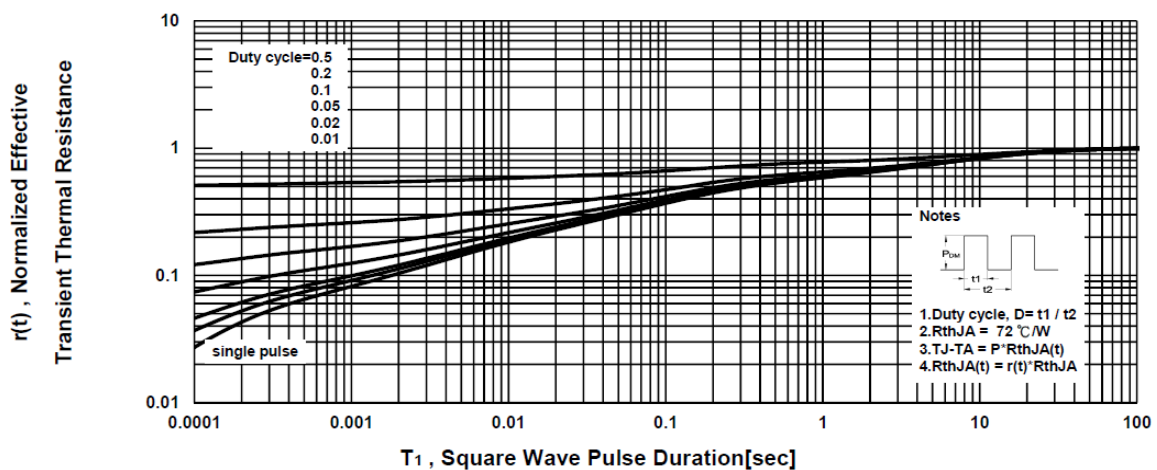
Safe Operating Area



Single Pulse Maximum Power Dissipation



Transient Thermal Response Curve



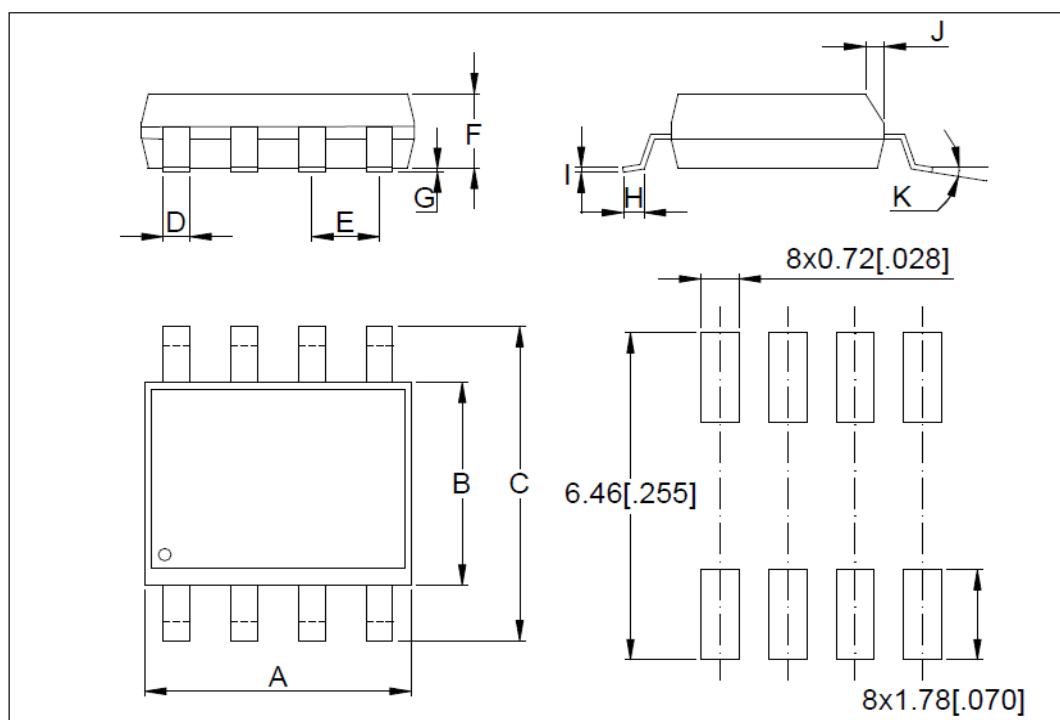
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Package Dimension

SOP-8 MECHANICAL DATA

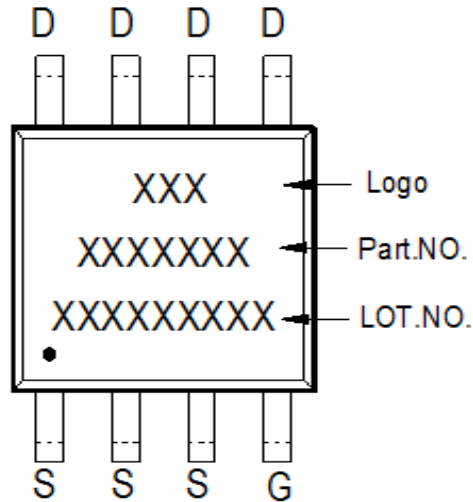
Dimension	mm			Dimension	mm		
	Min.	Typ.	Max.		Min.	Typ.	Max.
A	4.8	4.9	5.0	H	0.4	0.6	0.93
B	3.8	3.9	4.0	I	0.19	0.21	0.25
C	5.79	6.0	6.2	J	0.25	0.375	0.5
D	0.33	0.4	0.51	K	0°	3°	18°
E	1.25	1.27	1.29				
F	1.1	1.3	1.65				
G	0.05	0.15	0.25				



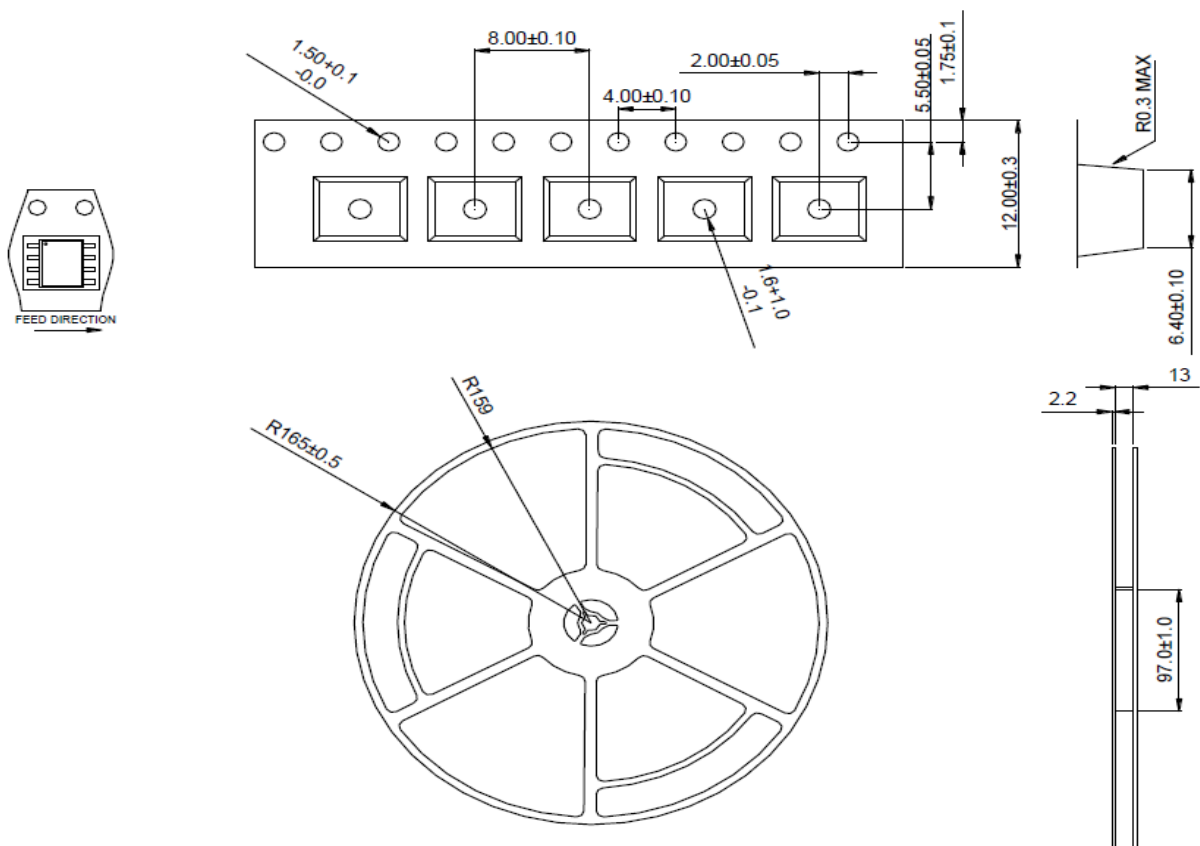
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A. Marking Information



B. Tape&Reel Information:2500pcs/Reel

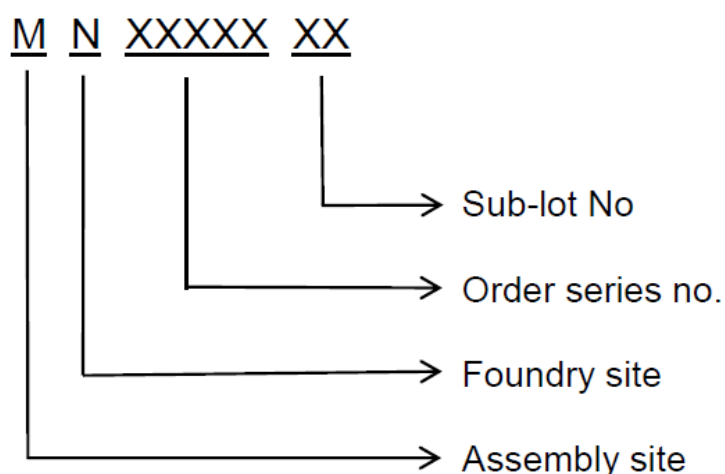


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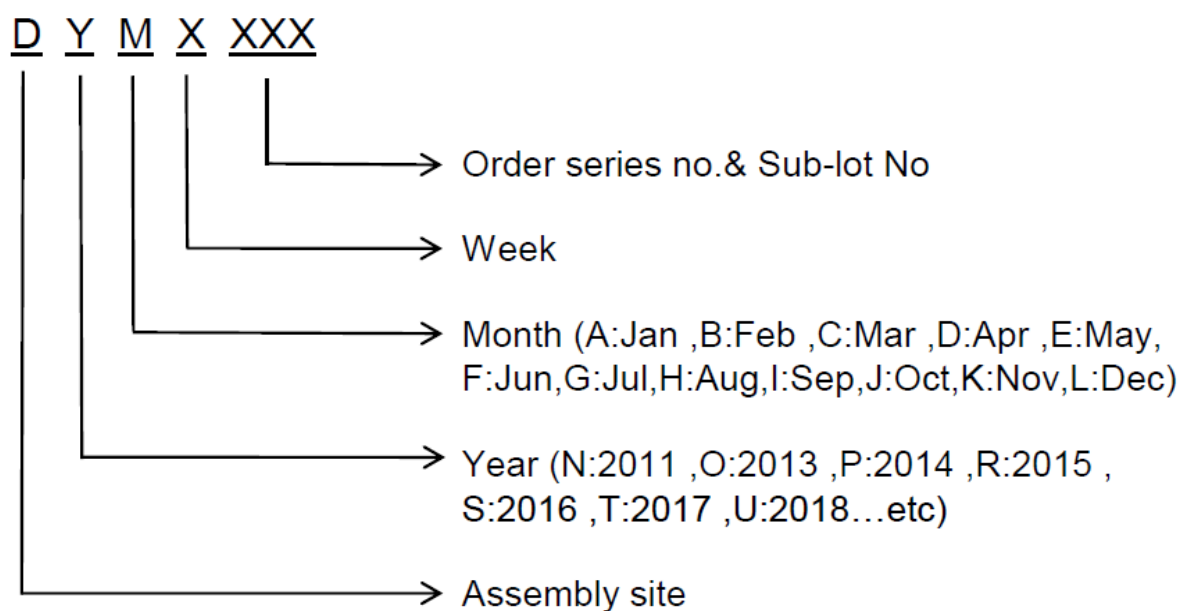
P-Channel Enhancement Mode MOSFET

C. Lot No.&Date Code rule

1.Lot No.



2.Date Code



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D.Label rule

标签内容(Label content)



1	Label Size	30 * 90 mm
2	Font style	Times New Roman or Arial (或可区分英文"0"和数字"0", "G"和"Q"的字型即可)
3	U-NIKC	Height: 4 mm
4	Package	Height: 2 mm
5	Date	Height: 2 mm Shipping date: YYYY/MM/DD, ex. 2008/09/12
6	Device	Height: 3 mm (Max: 16 Digit)
7	Lot	Height: 3 mm (Max: 9 Digit) Sub lot
8	D/C	Height: 3 mm (Max: 7 Digit)
9	QTY	Height: 3 mm (Max: 6 Digit) Thousand mark is no needed
10	RoHS label	 long axis: 12 mm minor axis: 6 mm bottom color: White Font color: Black Font style: Arial
11	Halogen Free label	 Diameter: 10 mm bottom color: Green Font color: Black Font style: Arial
12	Scan information	Device / Lot / D/C / QTY, Insert "/" between every parts. for example: P3055LDG/G12345601/GGG2301/2000 DPI (Dots per inch): Over 300 dpi Code : Code 128 Height: 6 mm at least