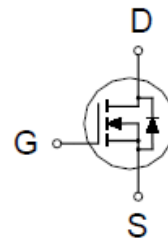
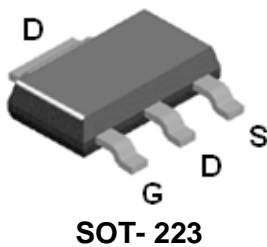


PA110BLA

N-Channel Enhancement Mode MOSFET

PRODUCT SUMMARY

$V_{(BR)DSS}$	$R_{DS(ON)}$	I_D
100V	110m Ω @ $V_{GS} = 10V$	3A



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

PARAMETERS/TEST CONDITIONS		SYMBOL	LIMITS	UNITS
Gate-Source Voltage		V_{GS}	± 20	V
Continuous Drain Current	$T_C = 25\text{ }^\circ\text{C}$	I_D	6	A
	$T_A = 25\text{ }^\circ\text{C}$		3.2	
	$T_A = 100\text{ }^\circ\text{C}$		2	
Pulsed Drain Current ¹		I_{DM}	15	
Avalanche Current		I_{AS}	6.6	
Avalanche Energy	$L = 0.1\text{mH}$	E_{AS}	2.2	mJ
Power Dissipation	$T_A = 25\text{ }^\circ\text{C}$	P_D	2.5	W
	$T_A = 100\text{ }^\circ\text{C}$		1	
Operating 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	$R_{\theta JA}$		50	$^\circ\text{C} / \text{W}$
Junction-to-Case	$R_{\theta JC}$		14	

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 $T_A = 25^\circ\text{C}$.

PA110BLA

N-Channel Enhancement Mode MOSFET

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

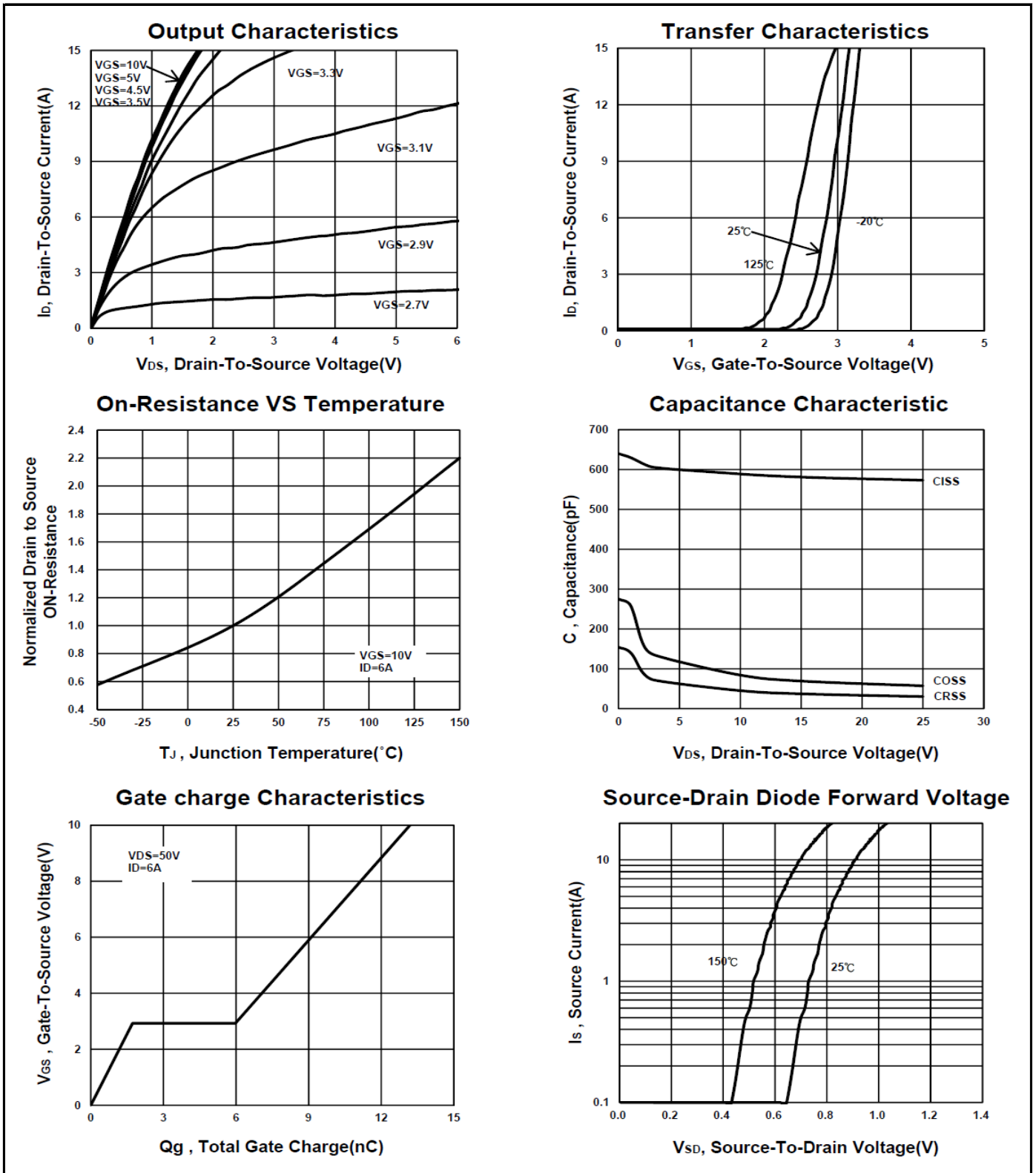
PARAMETER	SYMBOL	TEST CONDITIONS	LIMITS			UNITS
			MIN	TYP	MAX	
STATIC						
Drain-Source Breakdown Voltage	V _{(BR)DSS}	V _{GS} = 0V, I _D = 250μA	100			V
Gate Threshold Voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D = 250μA	1	1.8	3	V
Gate-Body Leakage	I _{GSS}	V _{DS} = 0V, V _{GS} = ±20V			±100	nA
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} = 80V, V _{GS} = 0V			1	μA
		V _{DS} = 80V, V _{GS} = 0V, T _J = 125 °C			10	
Drain-Source On-State Resistance ¹	R _{DS(ON)}	V _{GS} = 4.5V, I _D = 6A		89	120	mΩ
		V _{GS} = 10V, I _D = 6A		84	110	
Forward Transconductance ¹	g _{fs}	V _{DS} = 5V, I _D = 6A		22		S
DYNAMIC						
Input Capacitance	C _{iss}	V _{GS} = 0V, V _{DS} = 25V, f = 1MHz		579		pF
Output Capacitance	C _{oss}			57		
Reverse Transfer Capacitance	C _{rss}			31		
Gate Resistance	R _g	V _{GS} = 0V, V _{DS} = 0V, f = 1MHz		1.4		Ω
Total Gate Charge ²	Q _g	V _{DS} = 50V, V _{GS} = 10V, I _D = 6A		14		nC
Gate-Source Charge ²	Q _{gs}			1.8		
Gate-Drain Charge ²	Q _{gd}			4.6		
Turn-On Delay Time ²	t _{d(on)}	V _{DS} = 50V, I _D ≅ 6A V _{GS} = 10V, R _{GS} = 6Ω		16		nS
Rise Time ²	t _r			5		
Turn-Off Delay Time ²	t _{d(off)}			36		
Fall Time ²	t _f			10		
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			1.4	V
Reverse Recovery Time	t _{rr}	I _F = 6A, dI/dt = 100A / μS		22		nS
Reverse Recovery Charge	Q _{rr}				15	

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

²Independent of operating temperature.

PA110BLA

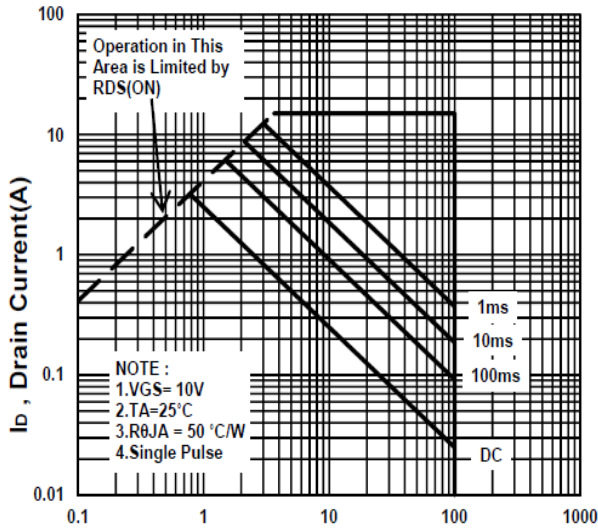
N-Channel Enhancement Mode MOSFET



PA110BLA

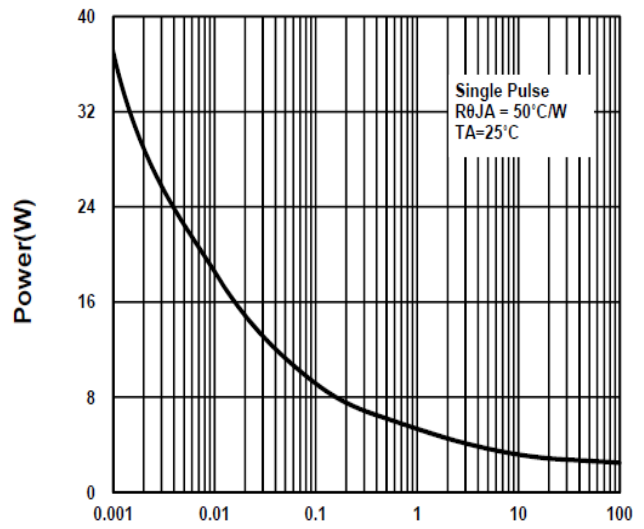
N-Channel Enhancement Mode MOSFET

Safe Operating Area



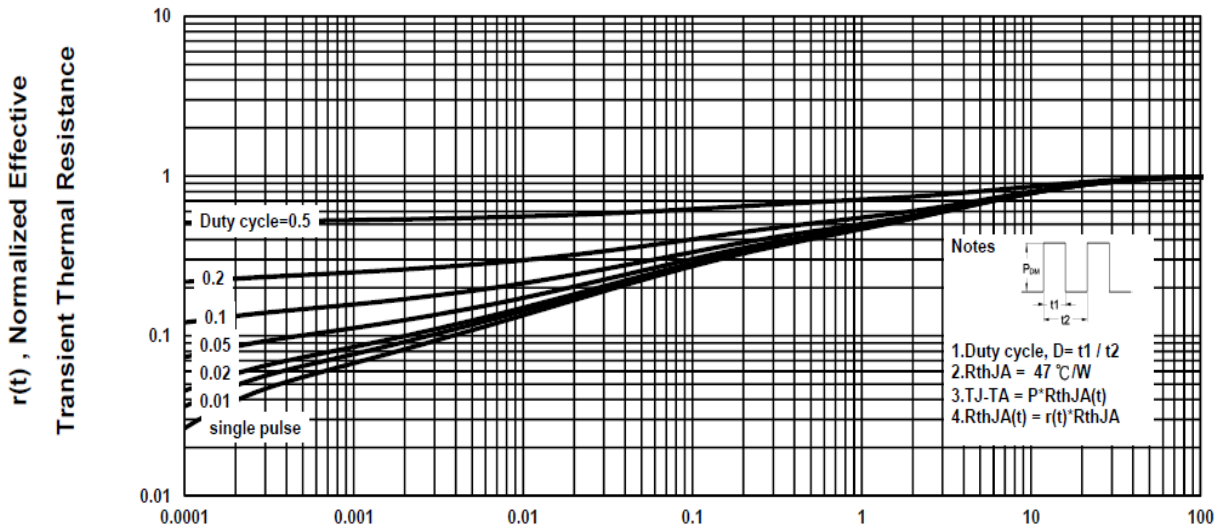
V_{DS} , Drain-To-Source Voltage (V)

Single Pulse Maximum Power Dissipation



Single Pulse Time (s)

Transient Thermal Response Curve

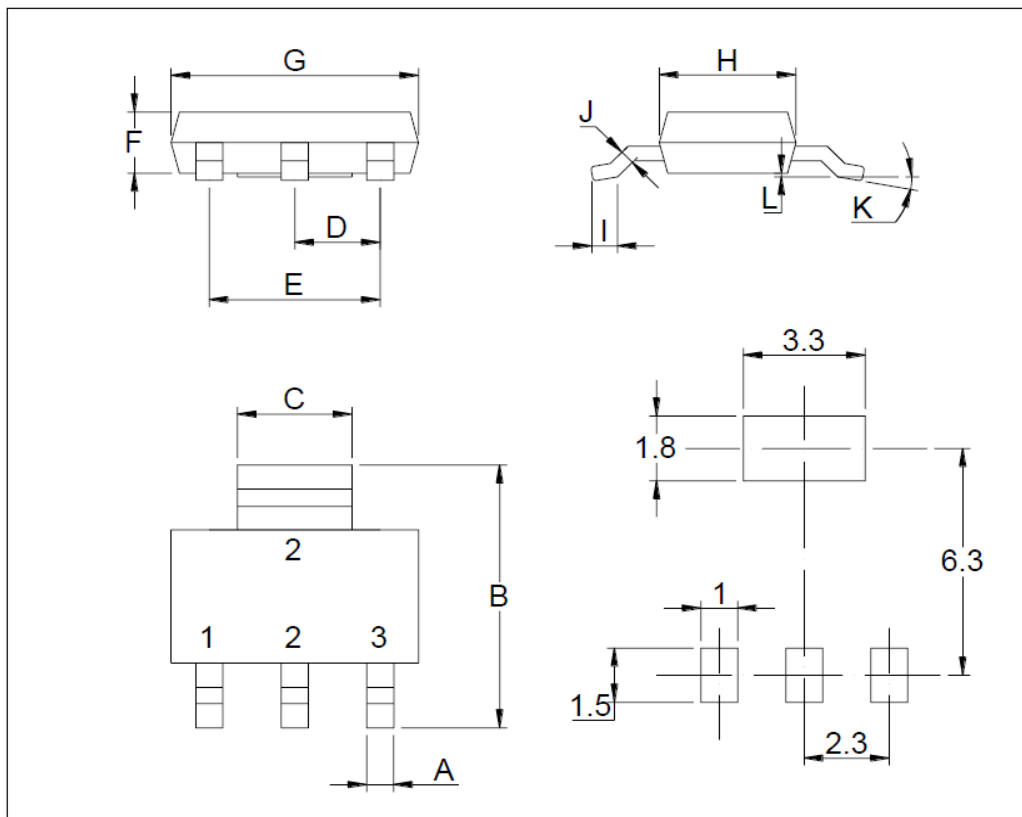


T_1 , Square Wave Pulse Duration [sec]

PA110BLA
N-Channel Enhancement Mode MOSFET

SOT-223 MECHANICAL DATA

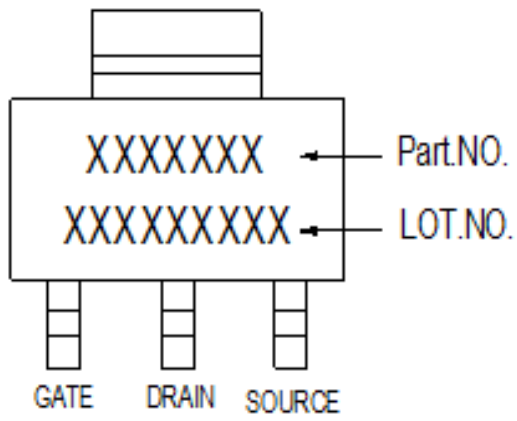
Dimension	mm			Dimension	mm		
	Min.	Typ.	Max.		Min.	Typ.	Max.
A	0.60	0.76	0.84	H	3.30	3.50	3.70
B	6.70	7.00	7.30	I	0.50	1.00	1.20
C	2.85	3.00	3.10	J	0.23	0.3	0.4
D	2.25	2.30	2.35	K	0°		10°
E	4.35	4.60	4.85	L	0	0.1	0.2
F	1.40	1.60	1.80	M			
G	6.30	6.50	6.80	N			



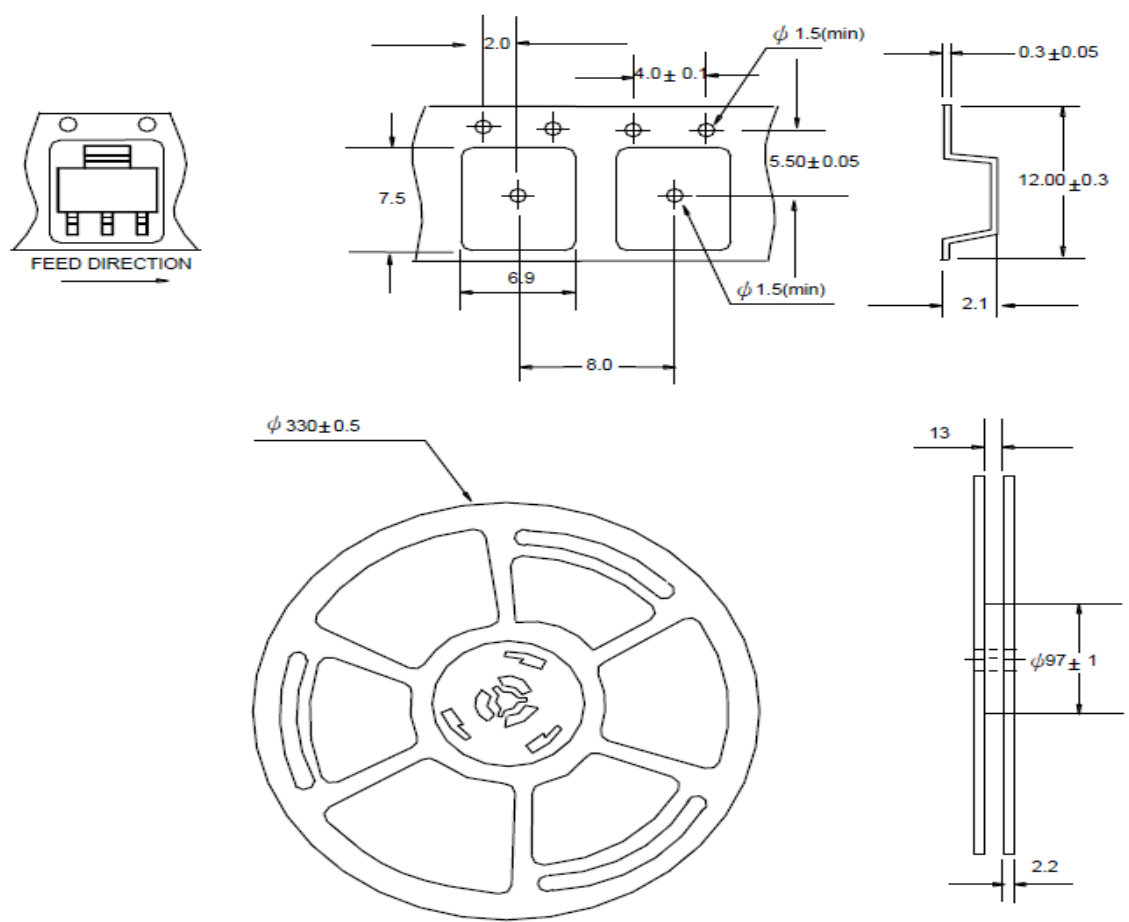
PA110BLA

N-Channel Enhancement Mode MOSFET

A. Marking Information



B. Tape & Reel Information: 2500pcs/Reel



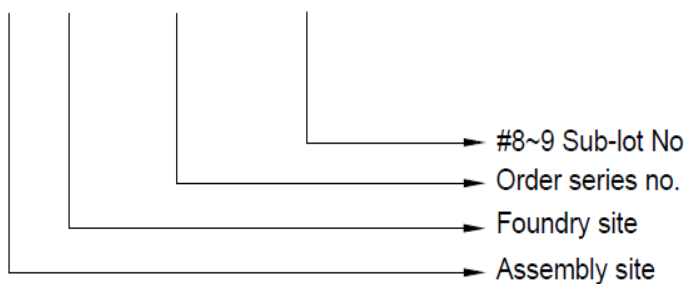
PA110BLA

N-Channel Enhancement Mode MOSFET

C. Lot.No. & Date Code rule

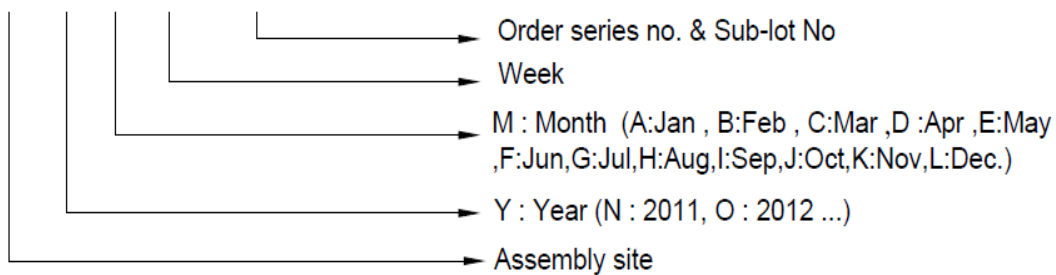
1.LOT.NO.

M N 15M21 03



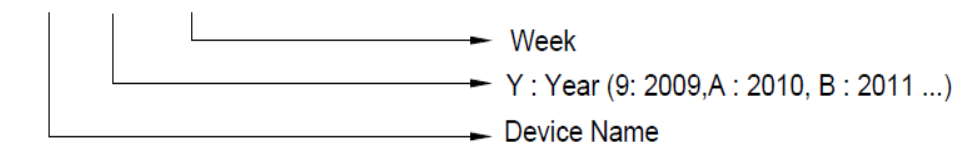
2.Date Code

D Y M X XXX



3.Date Code (for Small package)

XX Y WW





PA110BLA

N-Channel Enhancement Mode MOSFET

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	Great Power	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	Pb Free label	 Diameter: 1 cm bottom color: Green Font color: Black Font style: Arial
11	Halogen Free label	 Diameter: 1 cm bottom color: Green Font color: Black Font style: Arial
12	Scan info	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