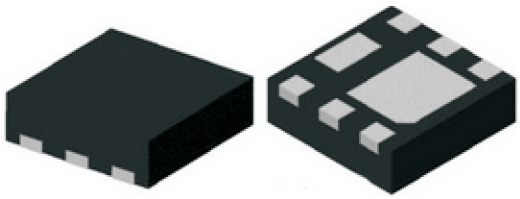
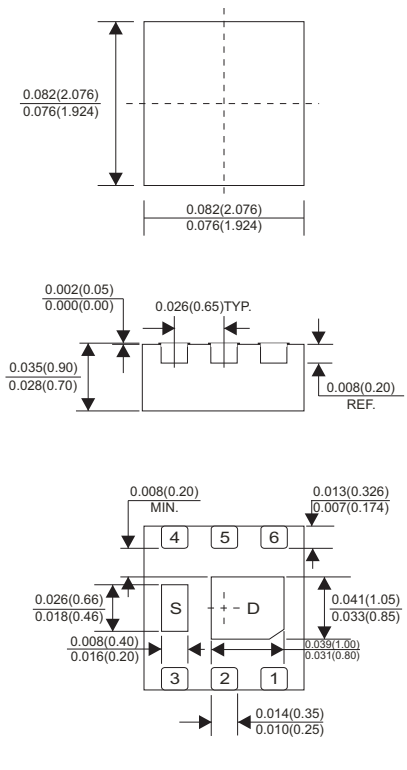
CJM1206-G (P-Channel)

RoHS Device



$V_{(BR)DSS}$	$R_{DS(on)}$MAX	I_D
-12V	45mΩ @ -4.5V	-6A
	60mΩ @ -2.5V	
	90mΩ @ -1.8V	

DFNWB2*2-6L-J



Dimensions in inches and (millimeter)

Features

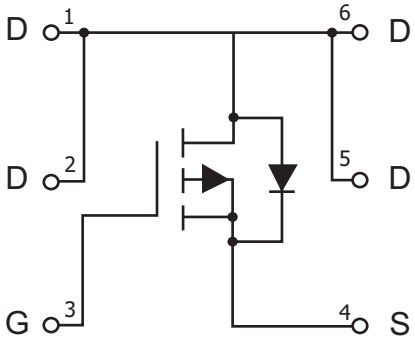
- P-Channel -12V(D-S) power MOSFET
- Advanced trench MOSFET process technology
- Ultra low on-resistance with low gate charge

Mechanical data

- Case: DFNEB2*2-6L-J, molded plastic.

Circuit diagram

- 1. DRAIN
- 2. DRAIN
- 3. GATE
- 4. SOURCE
- 5. DRAIN
- 6. DRAIN



Maximum Ratings (at Ta=25 °C unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-source voltage	V_{DS}	-12	V
Gate-source voltage	V_{GS}	±8	
Drain current-continuous	I_D	-6	A
Drain current-pulsed	I_{DM}*	-20	
Power dissipation	P_D	2.5	W
Thermal resistance from junction to ambient	$R_{\Theta JA}$	357	°C/W
Junction temperature range	T_J	-40 to +150	°C
Storage temperature range	T_{STG}	-55 to +150	°C

* Repetitive rating: Pluse width limited by junction temperature

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Electrical Characteristics (at T_A=25°C unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Static characteristics						
Drain-source breakdown voltage	$V_{(BR)\ DSS}$	V_{GS} = 0V , I_D = -250μA	-12			V
Gate-source threshold voltage	$V_{GS(th)}$	V_{DS} = V_{GS} , I_D = -250μA	-0.5		-0.9	V
Gate-source leakage current	I_{GSS}	V_{DS} = 0V , V_{GS} = ±8V			±100	nA
Zero gate voltage drain current	I_{DSS}	V_{DS} = -8V , V_{GS} = 0V			-1	μA
Drain-source on-resistance (note 1)	$R_{DS(on)}$	V_{GS} = -4.5V , I_D = -3.5A		30	45	mΩ
		V_{GS} = -2.5V , I_D = -3A		40	60	
		V_{GS} = -1.8V , I_D = -2.0A		60	90	
Forward transconductance (note 1)	gfs	V_{DS} = -5V , I_D = -4.1A	6			S
Dynamic characteristics						
Input capacitance (note 2,3)	C_{iss}	V_{DS} = -4V , V_{GS} = 0V f = 1MHz		740		pF
Output capacitance (note 2,3)	C_{oss}			290		
Reverse transfer capacitance (note 2,3)	C_{rss}			190		
Total gate charge (note2)	Qg	V_{DS} = -4V , V_{GS} = -4.5V, I_D = -4.1A,		7.8	15	nC
		V_{DS} = -4V , V_{GS} = -2.5A I_D = -4.1A		45	9	
Gate-source charge (note2)	Qgs			1.2		
Gate-drain charge (note2)	Qgd			1.6		
Gate-resistance (note2,3)	Rg	f = 1MHz	1.4	7	14	Ω
Trun-on delay time (note2,3)	td(on)	V_{DD} = -4V R_L = 1.2Ω , I_D ≈ -3.3A V_{GEN} = -4.5V , Rg = 1Ω		13	20	nS
Rise time (note2,3)	tr			35	53	
Trun-off delay time (note2,3)	td(off)			32	48	
Fall time (note2,3)	tf			10	20	
Turn-on delay time (note2,3)	td(on)	V_{DD} = -4V R_L = 1.2Ω , I_D ≈ -3.3A V_{GEN} = -8V , Rg = 1Ω		5	10	
Rise time (note2,3)	tr			11	17	
Turn-off delay time (note2,3)	td(off)			22	33	
Fall time(note2,3)	tf			16	24	
Drain-source body diode characteristics						
Continuous source-drain diode current	Is				-6	A
Pulse diode forward current (note1)	I_{SM}				-20	
Body ciode voltage	V_{SD}	I_F = -3.3A			-1.2	V

Note:

1.Pulse test; pulse width≤300μs, Duty cycle≤2%

2. Guaranteed by design, not subject to production testing.

3. These parameters have no way to verify.

RATING AND CHARACTERISTIC CURVES (CJM1206-G)

Fig.1 - Output Characteristics

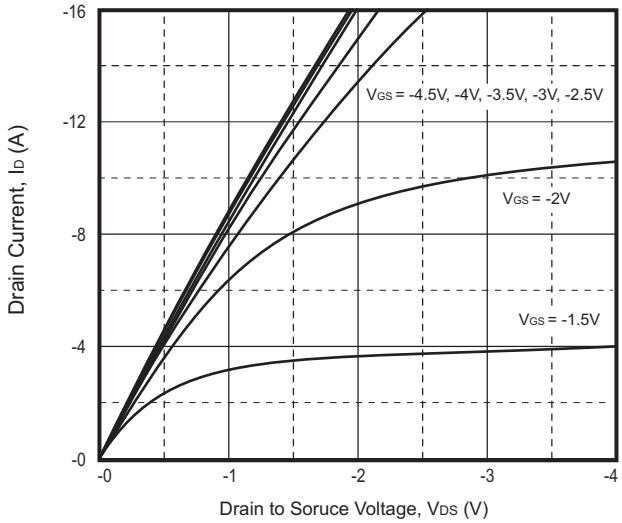


Fig.2 - Transfer Characteristics

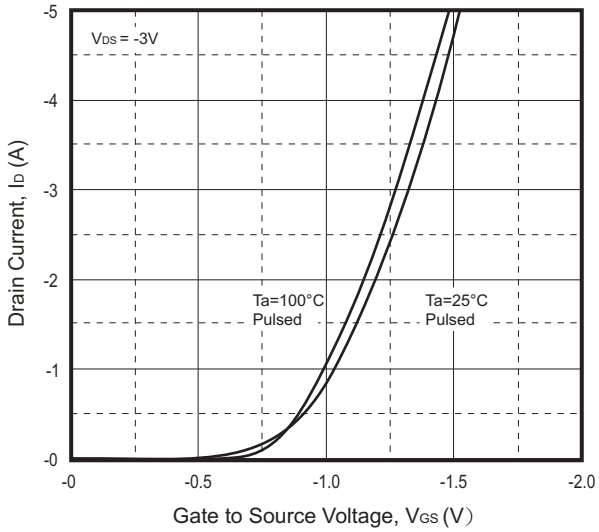


Fig.3 - $R_{DS(ON)}$ — I_D

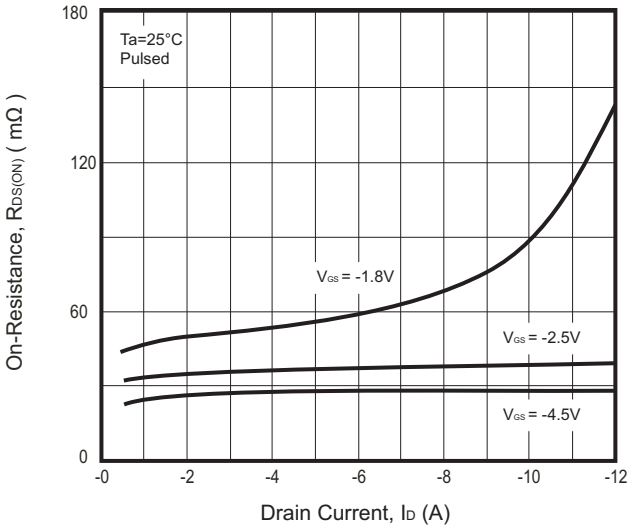


Fig.4 - $R_{DS(ON)}$ — V_{GS}

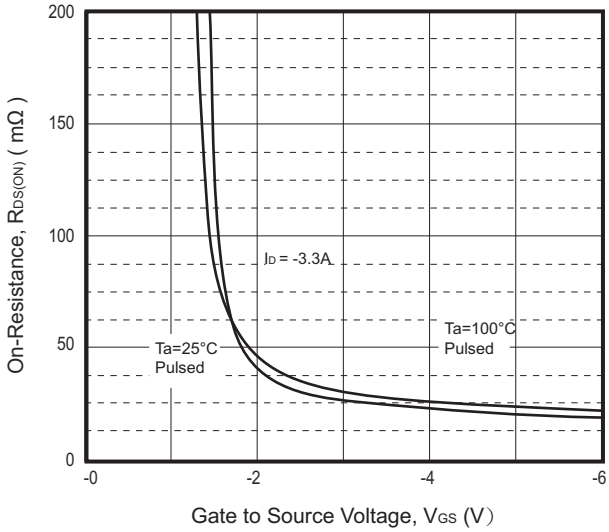


Fig.5 - I_S — V_{SD}

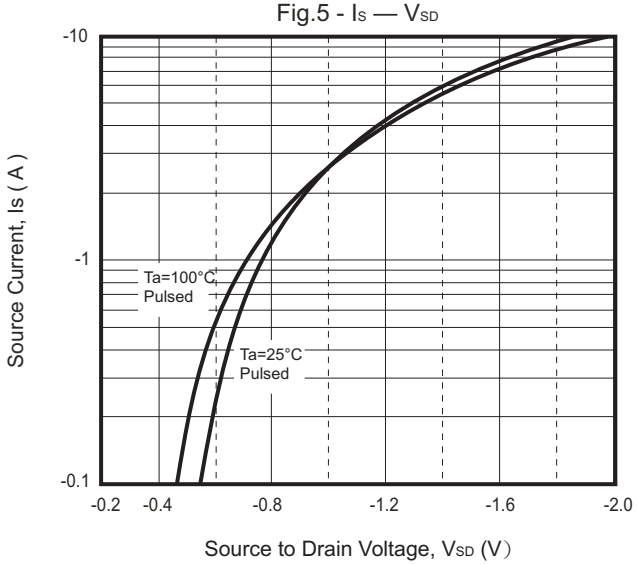
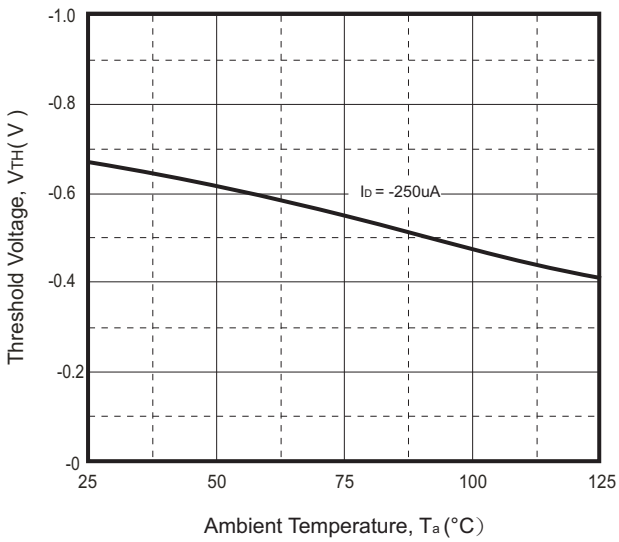
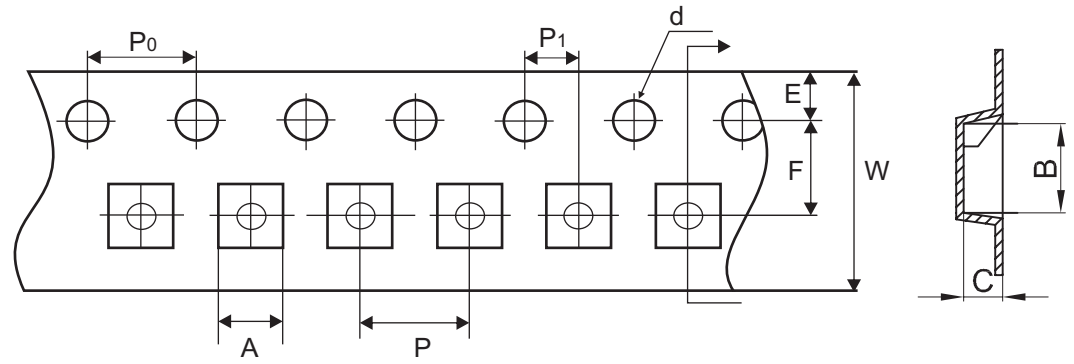


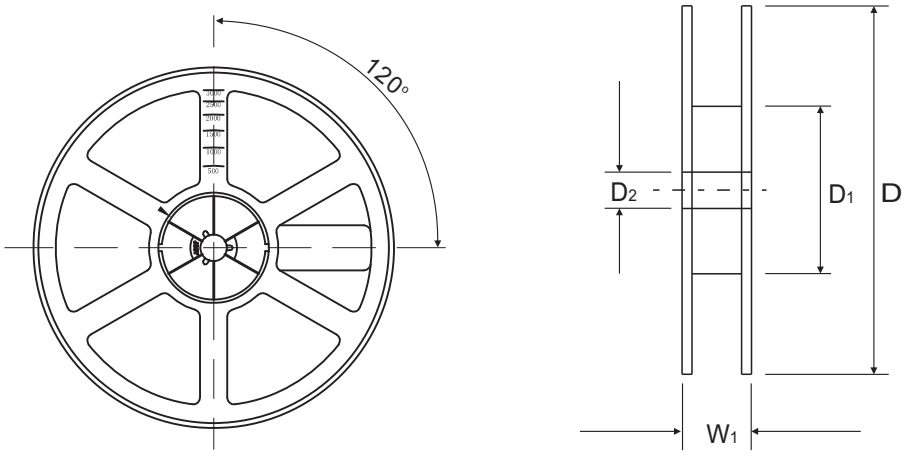
Fig.6 - Threshold Voltage

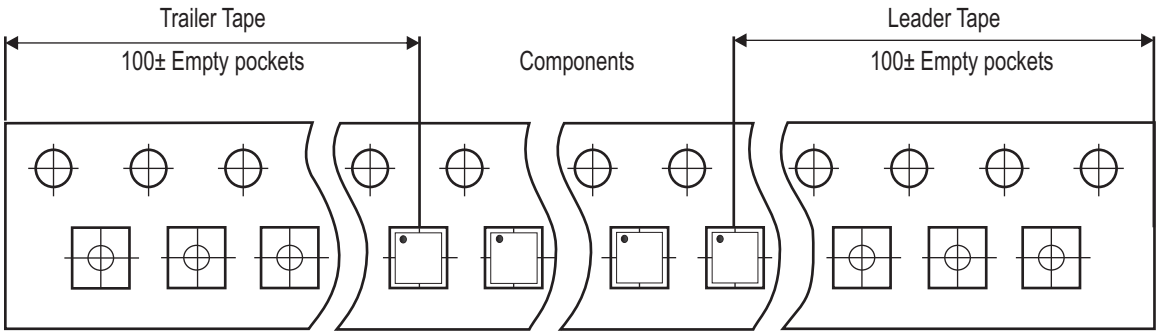


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Reel Taping Specification





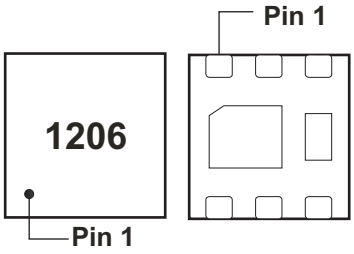


	SYMBOL	A	B	C	d	D	D_1	D_2
DFNWB2X2-6L-J	(mm)	2.30 ± 0.05	2.30 ± 0.05	1.10 ± 0.05	1.50 ± 0.10	180.00 + 0.00 - 3.00	60.00 ± 0.50	13.00 ± 0.20
	(inch)	0.091 ± 0.002	0.091 ± 0.002	0.043 ± 0.002	0.059 ± 0.004	7.087 + 0.000 - 0.118	2.362 ± 0.002	0.512 ± 0.008

	SYMBOL	E	F	P	P_0	P_1	W	W_1
DFNWB2X2-6L-J	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	8.00 + 0.30 - 0.10	13.10 ± 1.30
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.315 + 0.012 - 0.004	0.518 ± 0.051

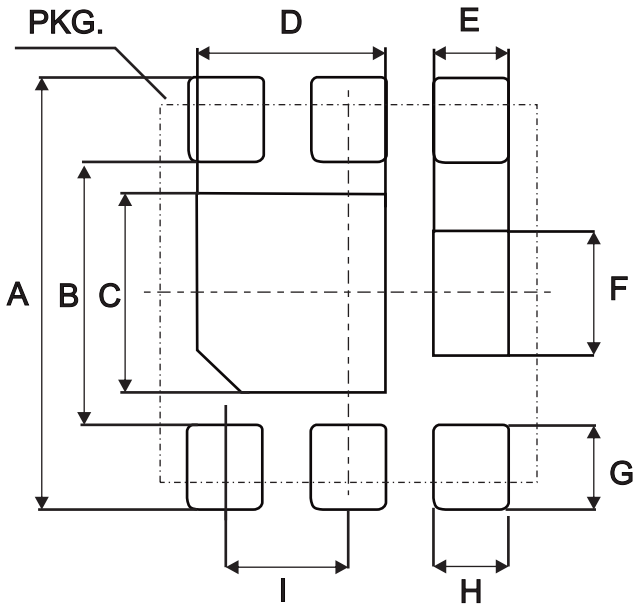
Marking Code

Part Number	Marking Code
CJM1206-G	1206



Suggested PAD Layout

SIZE	DFNWB2X2-6L-J	
	(mm)	(inch)
A	2.30	0.091
B	1.40	0.055
C	1.05	0.041
D	1.00	0.039
E	0.40	0.016
F	0.66	0.026
G	0.45	0.018
H	0.40	0.016
I	0.65	0.026



Standard Packaging

Case Type	Qty Per Reel	Reel Size
	(Pcs)	(inch)
DFNWB2X2-6L-J	8,000	7