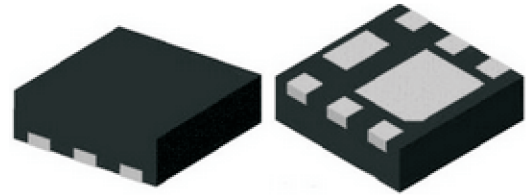


CJM1206-G (P-Channel)

RoHS Device

V(BR)DSS	RDS(on)MAX	ID
-12V	45mΩ @ -4.5V	-6A
	60mΩ @ -2.5V	
	90mΩ @ -1.8V	



Features

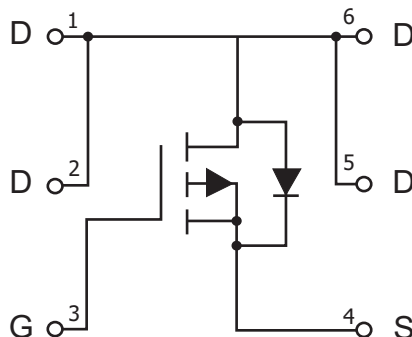
- P-Channel -12V(D-S) power MOSFET
- Advanced trench MOSFET process technology
- Ultra low on-resistance with low gate charge

Mechanical data

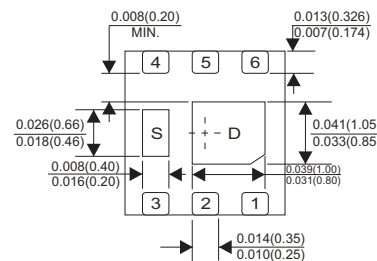
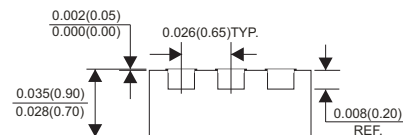
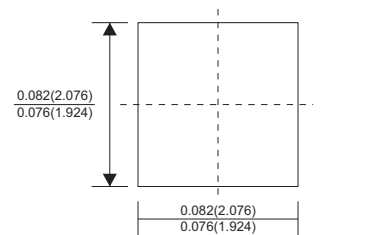
- Case: DFNEB2*2-6L-J, molded plastic.

Circuit diagram

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



DFNWB2*2-6L-J



Dimensions in inches and (millimeter)

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 _{ΘJA}	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 TA=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)	g _{fs}	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)	Q _g	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)	Q _{gs}			1.2		
Gate-drain charge (note2)	Q _{gd}			1.6		
Gate-resistance (note2,3)	R _g	f = 1MHz	1.4	7	14	Ω
Trun-on delay time (note2,3)	t _{d(on)}	V _{DD} = -4V R _L = 1.2Ω , I _D ≈ -3.3A V _{GEN} = -4.5V , R _g = 1Ω		13	20	nS
Rise time (note2,3)	t _r			35	53	
Trun-off delay time (note2,3)	t _{d(off)}			32	48	
Fall time (note2,3)	t _f			10	20	
Turn-on delay time (note2,3)	t _{d(on)}	V _{DD} = -4V R _L = 1.2Ω , I _D ≈ -3.3A V _{GEN} = -8V , R _g = 1Ω		5	10	
Rise time (note2,3)	t _r			11	17	
Turn-off delay time (note2,3)	t _{d(off)}			22	33	
Fall time(note2,3)	t _f			16	24	
Drain-source body diode characteristics						
Continuous source-drain diode current	I _s				-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 $\leq 300\mu s$, Duty cycle $\leq 2\%$
2. Guaranteed by design, not subject to production testing.
3. These parameters have no way to verify.

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RATING AND CHARACTERISTIC CURVES (CJM1206-G)

Fig.1 - Output Characteristics

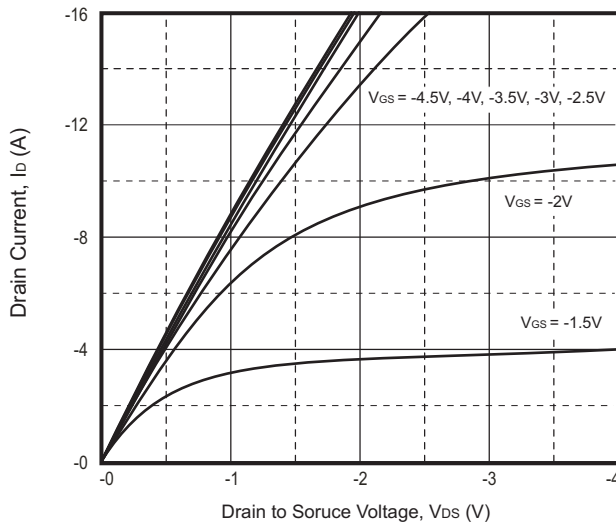


Fig.2 - Transfer Characteristics

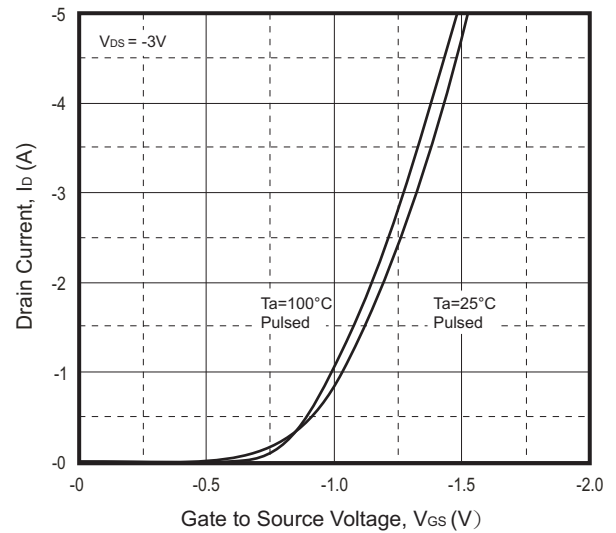


Fig.3 - $R_{DS(ON)} - I_D$

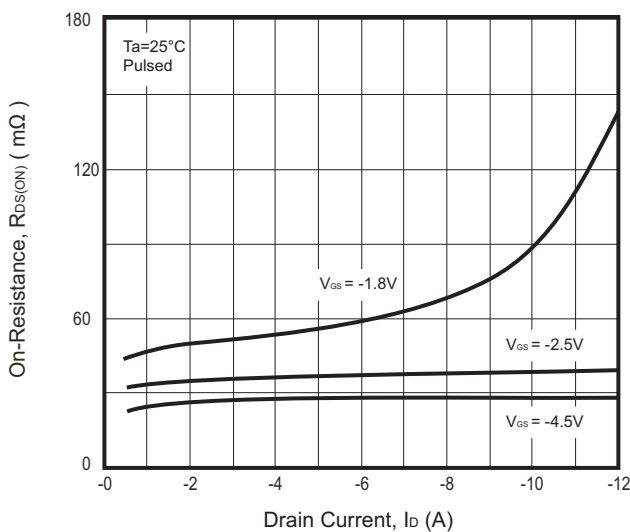


Fig.4 - $R_{DS(ON)} - V_{GS}$

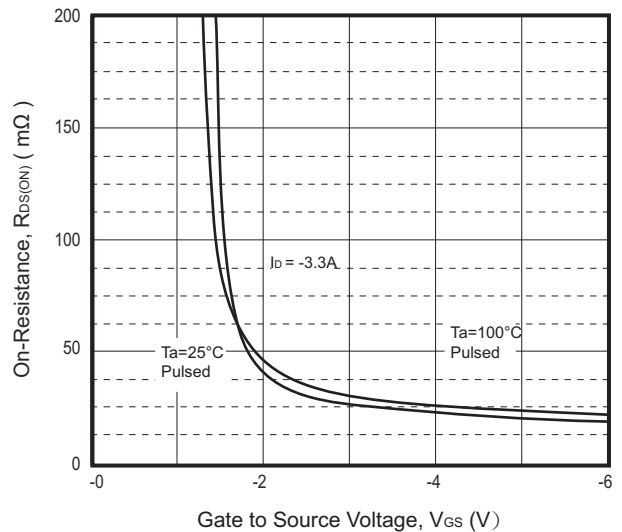


Fig.5 - $I_S - V_{SD}$

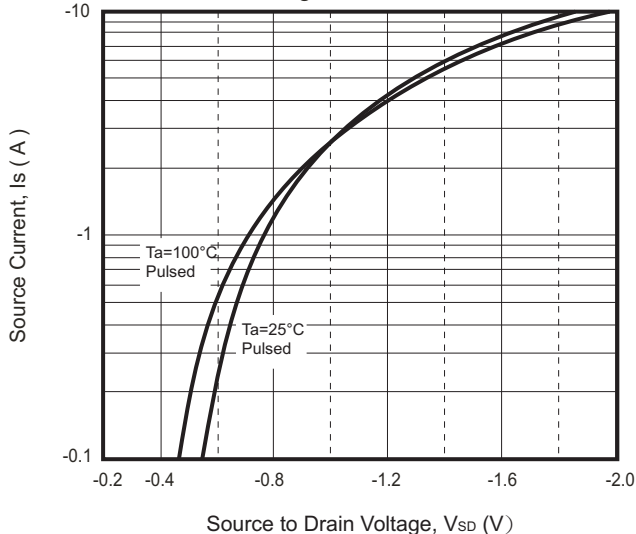
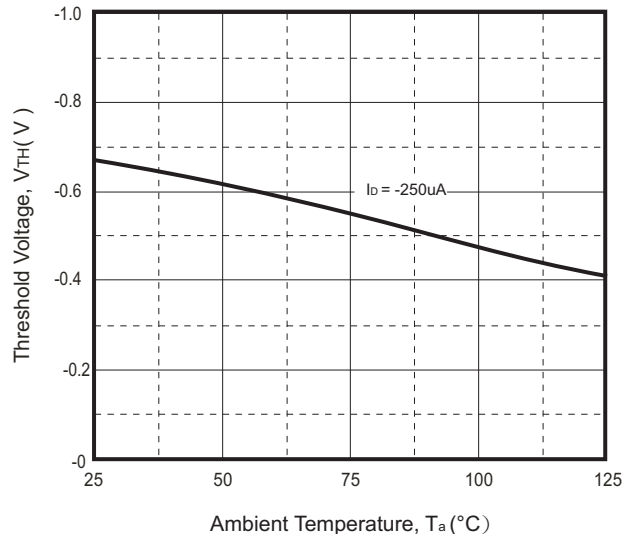
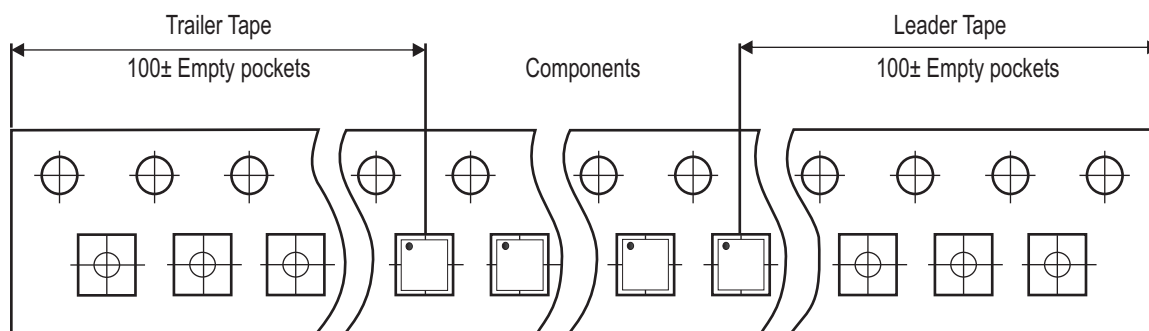
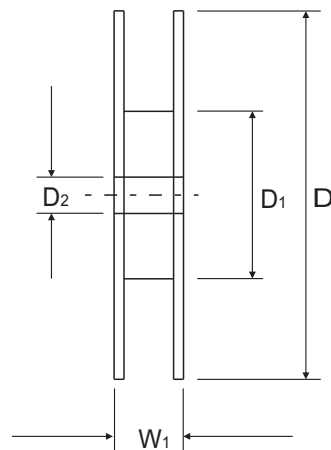
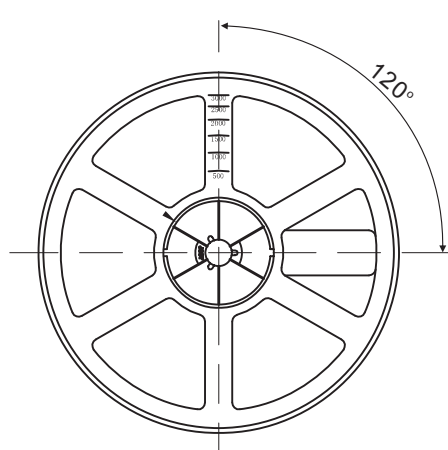
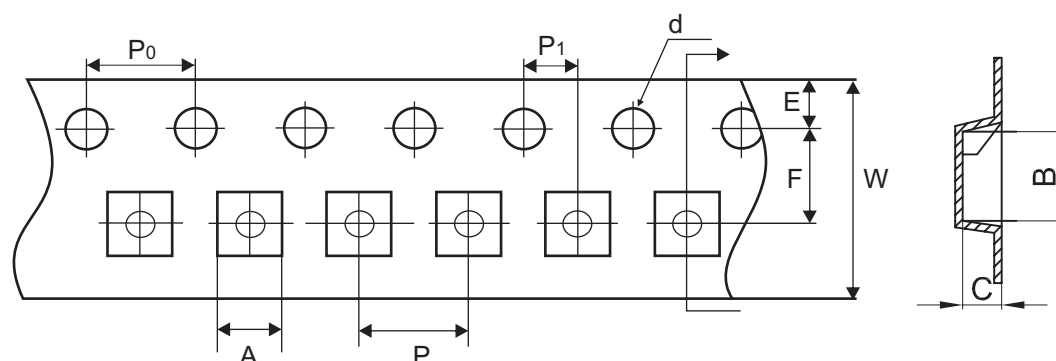


Fig.6 - Threshold Voltage



Reel Taping Specification



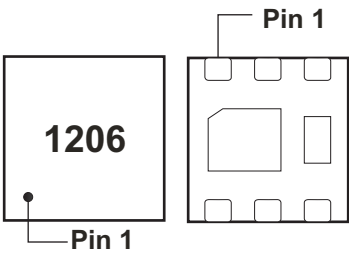
DFNWB2X2-6L-J	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	2.30 ± 0.05	2.30 ± 0.05	1.10 ± 0.05	1.50 ± 0.10	$180.00 + 0.00$ $- 3.00$	60.00 ± 0.50	13.00 ± 0.20
	(inch)	0.091 ± 0.002	0.091 ± 0.002	0.043 ± 0.002	0.059 ± 0.004	$7.087 + 0.000$ $- 0.118$	2.362 ± 0.002	0.512 ± 0.008

DFNWB2X2-6L-J	SYMBOL	E	F	P	P ₀	P ₁	W	W ₁
	(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

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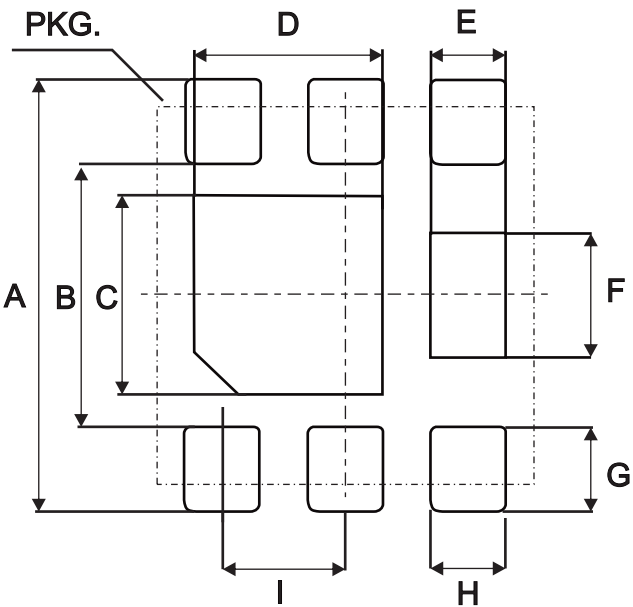
Marking Code

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