



#### Product Summary

$V_{(BR)DSS}$	$R_{DS(on)TYP}$	$I_D$
30V	30mΩ@10V	5A
	32mΩ@4.5V	
	38mΩ@2.5V	

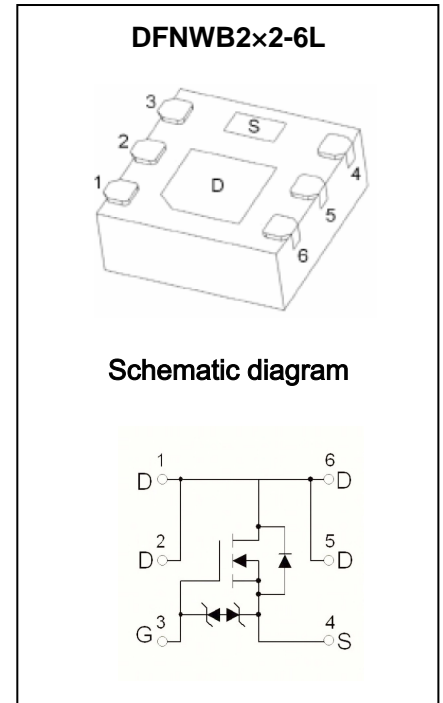
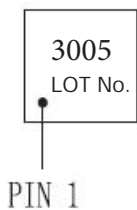
#### Feature

- TrenchFET Power MOSFET
- Excellent  $R_{DS(on)}$
- Typical ESD Protection

#### Application

- Battery Protection
- Load Switch

#### MARKING:



#### ABSOLUTE MAXIMUM RATINGS ( $T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	$V_{DS}$	30	V
Gate-Source Voltage	$V_{GS}$	$\pm 10$	V
Continuous Drain Current <sup>1,2</sup>	$I_D$	5	A
Pulsed Drain Current	$I_{DM}$	20	A
Power Dissipation	$P_D$	0.75	W
Thermal Resistance from Junction to Ambient <sup>1,2</sup>	$R_{\theta JA}$	250	$^\circ\text{C}/\text{W}$
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-55~ +150	$^\circ\text{C}$

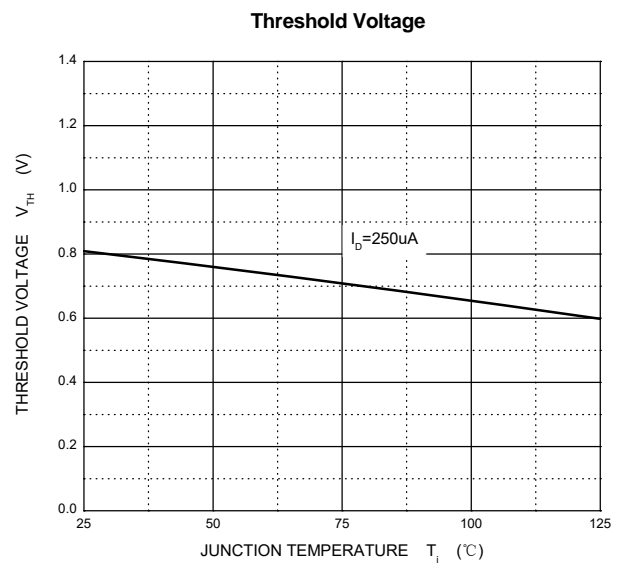
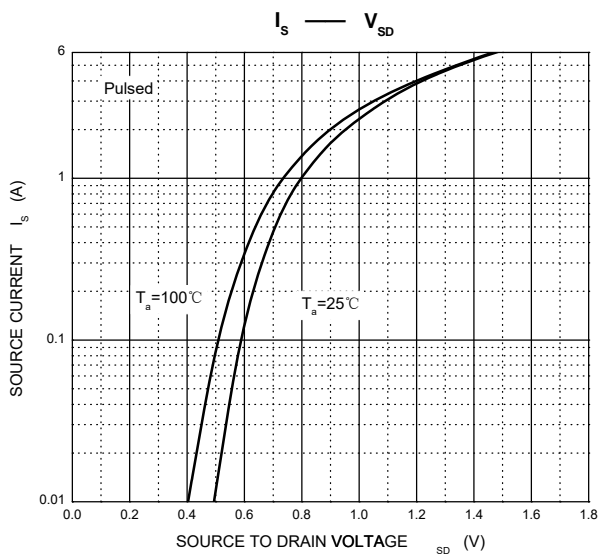
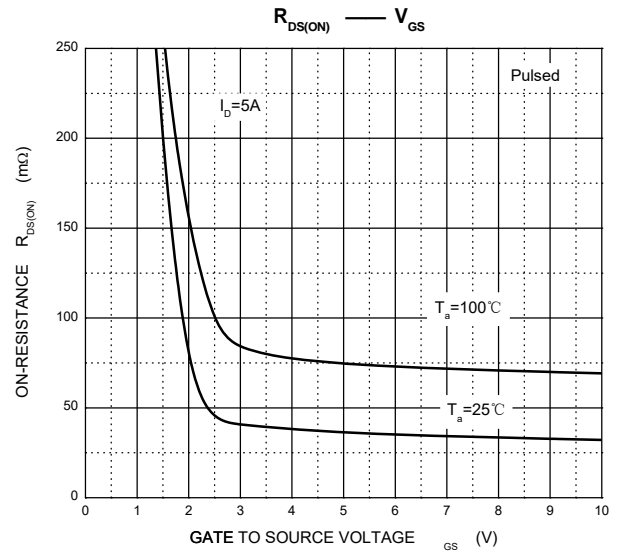
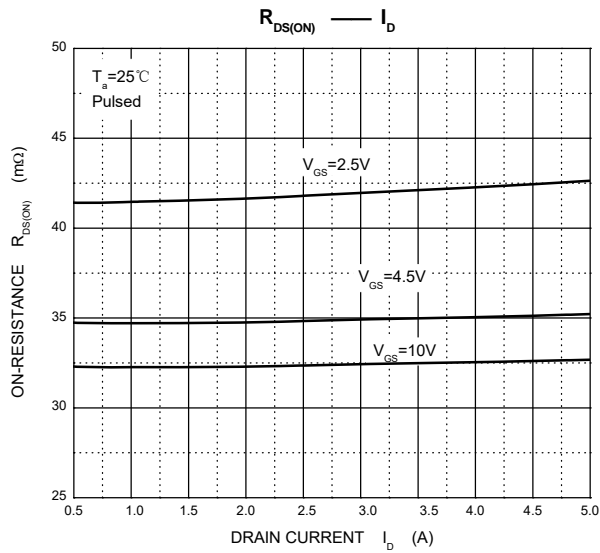
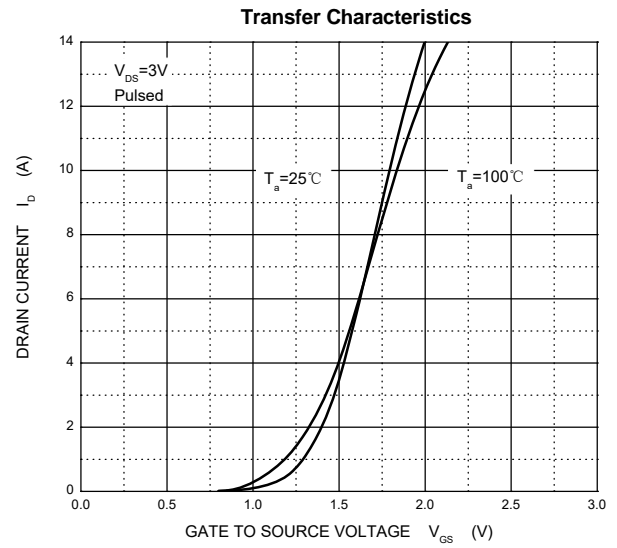
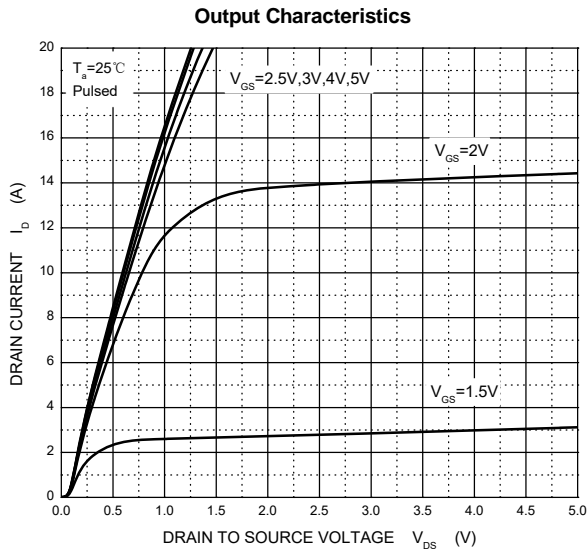
**MOSFET ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$  unless otherwise noted)**

Parameter	Symbol	Test Condition	Min	Type	Max	Unit
<b>Off Characteristics</b>						
Drain-source breakdown voltage	$V_{(BR)DSS}$	$V_{GS} = 0V, I_D = 250\mu A$	30			V
Zero gate voltage drain current	$I_{DSS}$	$V_{DS} = 30V, V_{GS} = 0V$			1	$\mu A$
Gate-body leakage current	$I_{GSS}$	$V_{GS} = \pm 10V, V_{DS} = 0V$			$\pm 10$	$\mu A$
<b>On Characteristics</b>						
Gate threshold voltage <sup>3</sup>	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = 250\mu A$	0.6	0.75	1	V
Drain-source on-resistance <sup>3</sup>	$R_{DS(on)}$	$V_{GS} = 10V, I_D = 5A$		30	40	m $\Omega$
		$V_{GS} = 4.5V, I_D = 5A$		32	42	
		$V_{GS} = 2.5V, I_D = 4A$		38	50	
Forward Transconductance <sup>3</sup>	$g_{fs}$	$V_{DS} = 5V, I_D = 4A$		15		S
<b>Dynamic Characteristics</b>						
Input Capacitance	$C_{iss}$	$V_{DS} = 15V, V_{GS} = 0V, f = 1MHz$		245		pF
Output Capacitance	$C_{oss}$			35		
Reverse Transfer Capacitance	$C_{rss}$			20		
<b>Switching Characteristics</b>						
Total Gate Charge	$Q_g$	$V_{DS} = 15V, V_{GS} = 10V, I_D = 4A$			10	nC
Gate-Source Charge	$Q_{gs}$			0.5		
Gate-Drain Charge	$Q_{gd}$			1		
Turn-on delay time	$t_{d(on)}$	$V_{DD} = 15V, V_{GS} = 10V, R_L = 3.75\Omega$ $R_G = 3\Omega$		2		ns
Turn-on rise time	$t_r$			3.5		
Turn-off delay time	$t_{d(off)}$			22		
Turn-off fall time	$t_f$			3.5		
<b>Source-Drain Diode Characteristics</b>						
Continuous Source Current	$I_S$	$V_G = V_D = 0V$ , Force Current			5	A
Pulsed Source Current	$I_{SM}$				20	
Diode Forward Voltage	$V_{SD}$	$V_{GS} = 0V, I_S = 1A$			1.2	V

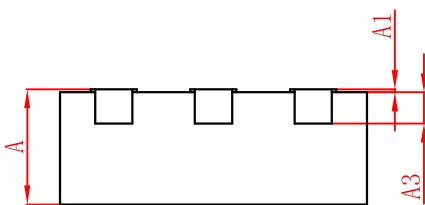
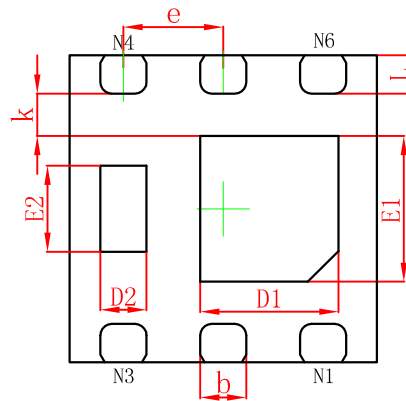
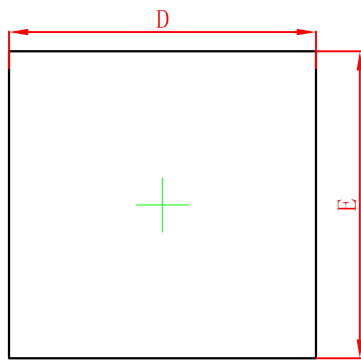
**Notes :**

- $R_{\theta JA}$  is measured with the device mounted on 1 in<sup>2</sup> FR4 board with 1 oz. single side copper, in a still air environment with  $T_A = 25^\circ\text{C}$ .
- $R_{\theta JA}$  is measured in the steady state
- Pulse test : Pulse width  $\leq 380\mu s$ , duty cycle  $\leq 2\%$ .

**Typical Electrical and Thermal Characteristics**



## DFNWB2X2-6L Package Information



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.700	0.800		0.032
A1	0.000	0.050	0.000	0.002
A3	0.203REF.		0.008REF.	
D	1.924	2.076	0.076	0.082
E	1.924	2.076	0.076	0.082
D1	0.800	1.000	0.031	0.039
E1	0.850	1.050	0.033	0.041
D2	0.200	0.400	0.008	0.016
E2	0.460	0.660	0.018	0.026
k	0.200MIN.		0.008MIN.	
b	0.250	0.350	0.010	0.014
e	0.650TYP.		0.026TYP.	
L	0.174	0.326	0.007	0.013

单击下面可查看定价，库存，交付和生命周期等信息

[>>GP\(格瑞宝\)](#)