

Product Summary

$V_{(BR)DSS}$	$R_{DS(on)TYP}$	I_D
-16V	16m Ω @-4.5V	-10A
	23m Ω @-2.5V	

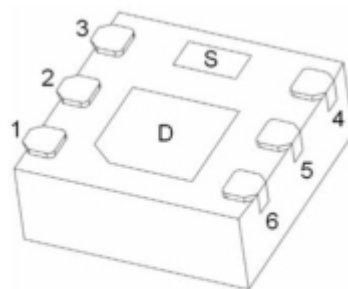
Feature

- Advanced trench MOSFET process technology
- Ultra low on-resistance with low gate charge

Applications

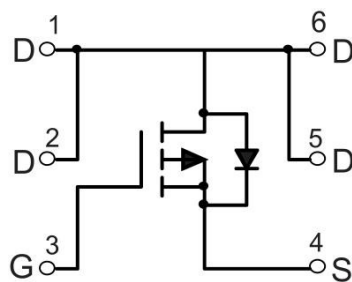
- PWM application
- Load switch
- Battery charge in cellular handset

Package

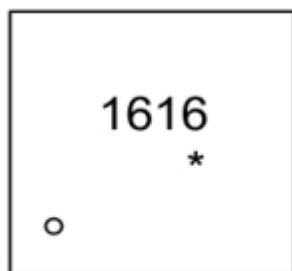


DFNWB2*2-6L-J

Circuit diagram



Marking



1616 =Device Code
* =Month Code

Absolute maximum ratings

(T_a=25°C unless otherwise noted)

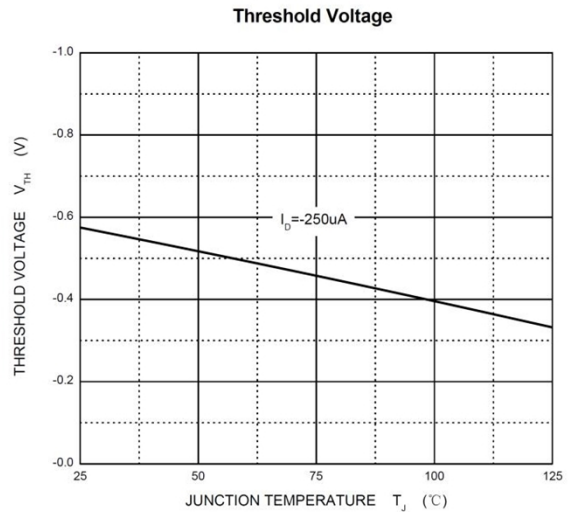
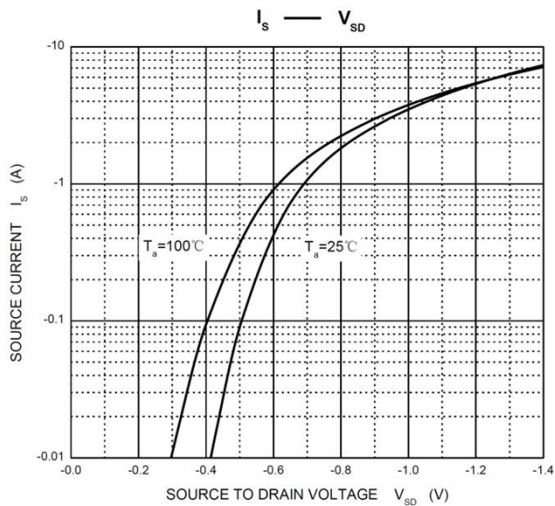
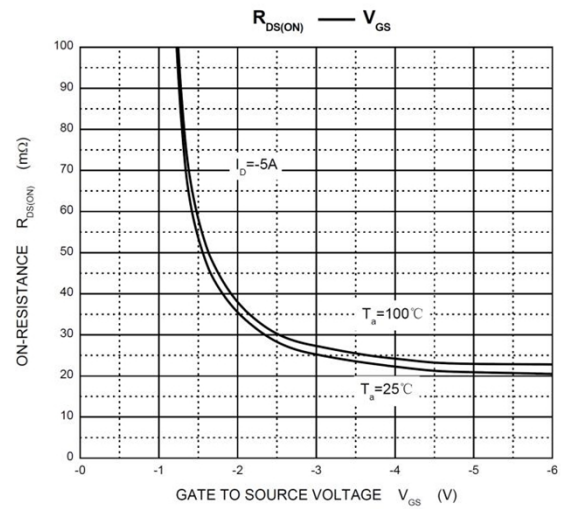
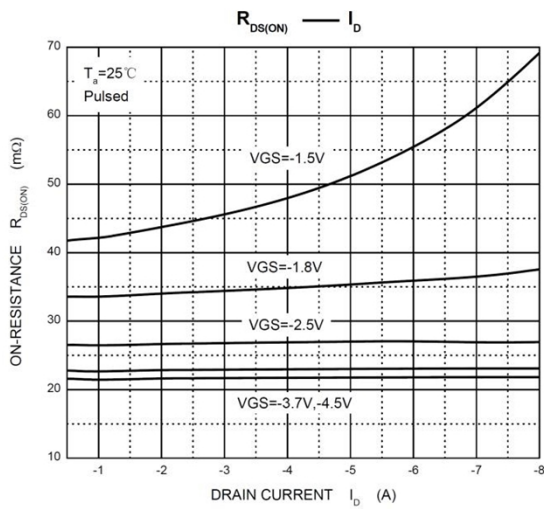
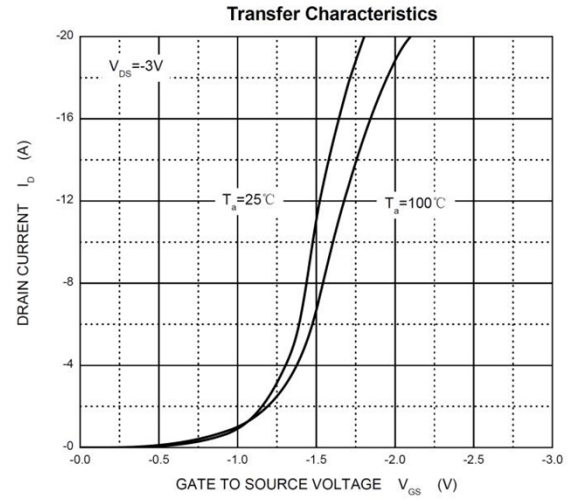
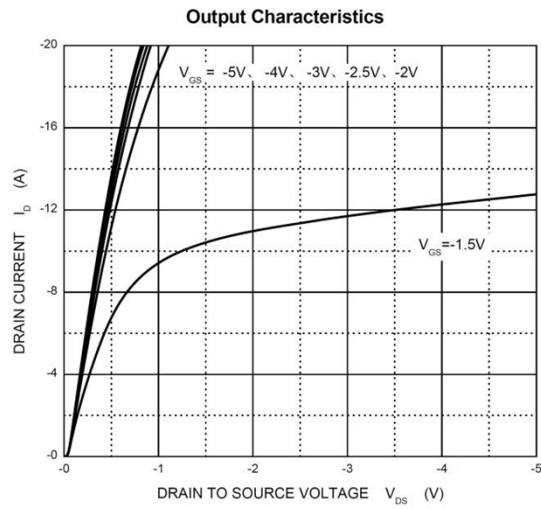
Parameter		Symbol	Value	Unit
Drain-source Voltage		V _{DS}	-16	V
Gate-source Voltage		V _{GS}	±12	V
Drain Current	T _C =25°C@Steady State	I _D	-10	A
	T _C =70°C@Steady State	I _D	-8	A
Pulsed Drain Current ¹		I _{DM}	-40	A
Total Power Dissipation		P _D	18	W
Thermal Resistance Junction-to-Ambient		R _{θJC}	6.9	°C/ W
Junction and Storage Temperature Range		T _{STG} , T _J	-55 ~ +150	°C

Electrical characteristics

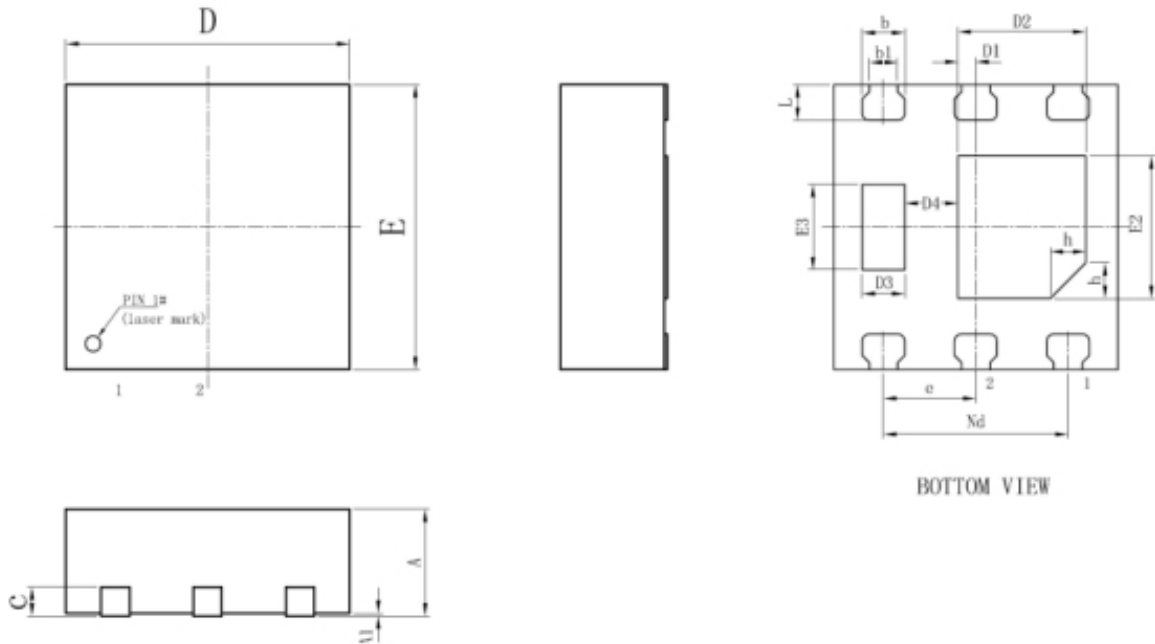
($T_A=25^{\circ}\text{C}$, unless otherwise noted)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Static Characteristics						
Drain-Source Breakdown Voltage	BV (BR)DSS	V _{GS} = 0V, I _D = -250μA	-16	-18		V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} = -16V, V _{GS} = 0V, T _C =25°C			-1	uA
Gate-Body Leakage Current	I _{GSS}	V _{GS} = ±10V, V _{DS} = 0V			±0.1	uA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} , I _D = -250μA	-0.45	-0.65	-1	V
Drain-Source On-State Resistance	R _{DS(on)}	V _{GS} = -4.5V, I _D = -5A		16	20	mΩ
		V _{GS} = -2.5V, I _D = -4A		23	35	
Dynamic Characteristics						
Input capacitance	C _{iSS}	V _{DS} = -6V, V _{GS} =0V, f=1MHz		1275		pF
Output capacitance	C _{oSS}			255		
Reverse transfer capacitance	C _{rSS}			236		
Total gate charge	Q _g	V _{DS} = -6V , V _{GS} = -4.5V , I _D = -5A		14	21	nC
Gate-source charge	Q _{gs}			2.3		
Gate-drain charge	Q _{gd}			3.6		
Turn-on Delay Time	T _{d(on)}	V _{DD} = -6V, V _{GEN} = -4.5V, I _D = -4A, R _{GEN} =1Ω		26	40	nS
Turn-on Rise Time	T _r			24	40	
Turn-Off Delay Time	T _{d(off)}			45	70	
Turn-Off Fall Time	t _f			20	35	
Source-Drain Diode Characteristics						
Diode Forward voltage	V _{SD}	I _S = -4A, V _{GS} = 0V			-1.2	V

Typical Characteristics



DFN2*2-6L-J Package Information



Symbol	Dimensions In Millimeters		
	Min.	Typ.	Max.
A	0.70	0.75	0.80
A1		0.02	0.05
b	0.25	0.30	0.35
b1	0.20REF		
c	0.203REF		
D	1.90	2.00	2.10
D1	0.08	0.125	0.18
D2	0.85	0.90	0.95
D3	0.25	0.30	0.35
D4	0.33	0.375	0.43
e	0.65BSC		
Nd	1.30BSC		
E	1.90	2.00	2.10
E2	0.95	1.00	1.05
E3	0.55	0.60	0.65
L	0.20	0.25	0.30
h	0.25REF		