Product Summary

$V_{(BR)DSS}$	$R_{DS(on)TYP}$	I_D
-16V	28mΩ@-4.5V	-6A
	38mΩ@-2.5V	

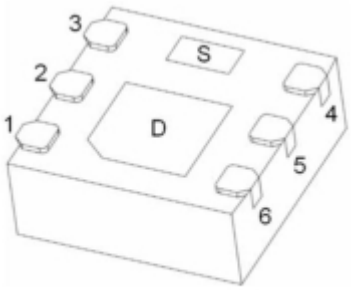
Feature

- TrenchTechnology
- Supper high density cell design
- Excellent ON resistance for higher DC current
- Extremely Low Threshold Voltage
- Small package DFN2*2-6L

Applications

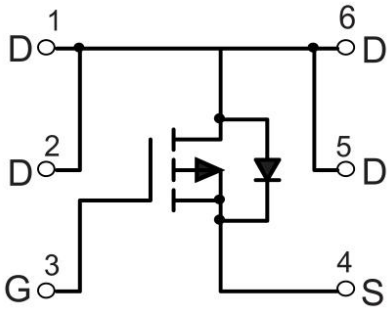
- Driver for Relay, Solenoid, Motor, LED etc.
- DC-DC converter circuit
- Power Switch
- Load Switch
- Charging

Package

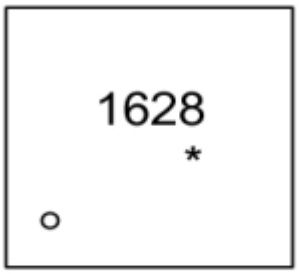


DFNWB2*2-6L-J

Circuit diagram



Marking



1628 **=Device Code**

***** **=Month Code**

Absolute maximum ratings

(T_a=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-source Voltage	V_{DS}	-16	V
Gate-source Voltage	V_{GS}	±10	V
Drain Current	I_D	-6	A
Pulsed Drain Current [1]	I_{DM}	-24	A
Total Power Dissipation @ T_C=25℃	P_D	1.4	W
Thermal Resistance Junction-to-Case @ Steady State	$R_{\theta JC}$	88	℃/W
Junction and Storage Temperature Range	T_J, T_{STG},,	-55~ +150	℃

Electrical characteristics

(T_A=25℃, unless otherwise noted)

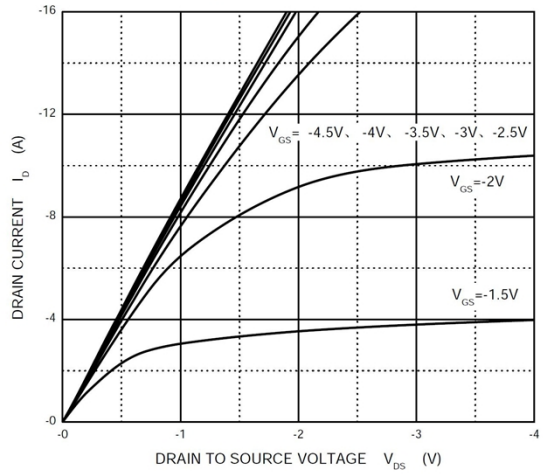
Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Static Characteristics						
Drain-source breakdown voltage	$BV_{(BR)DSS}$	V_{GS} = 0V, I_D =-250μA	-16			V
Zero gate voltage drain current	I_{DSS}	V_{DS} =-16V, V_{GS} = 0V, T_C=25℃			-1	uA
Gate-body leakage current	I_{GSS}	V_{GS} =±10V, V_{DS} = 0V			±100	uA
Gate threshold voltage (1)	$V_{GS(th)}$	V_{DS} =V_{GS}, I_D =-250μA	-0.4	-0.7	-1.0	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	V_{GS} =-4.5V, I_D =-3.5A		28	35	mΩ
		V_{GS} =-2.5V, I_D =-3A		38	45	
Dynamic Characteristics						
Input capacitance	C_{iss}	V_{DS}=-4V, V_{GS}=0V, f=1MHz		740		pF
Output capacitance	C_{oss}			290		
Reverse transfer capacitance	C_{rss}			190		
Switching Parameters						
Total gate charge	Q_g	V_{GS}=-4.5V , V_{DS}=-2.5V , I_D=-4.1A		4.5		nC
Gate-source charge	Q_{gs}			1.2		
Gate-drain charge	Q_{gd}			1.6		
Turn-on Delay Time	$T_{d(on)}$	V_{GS}=-4.5V, V_{DS}=-4V, R_L =1.2Ω ,R_G =1Ω		13		nS
Turn-on Rise Time	T_r			35		
Turn-Off Delay Time	$T_{d(off)}$			32		
Turn-Off Fall Time	t_f			10		
Source-Drain Diode Characteristics						
Diode Forward voltage	V_{DS}	V_{GS} =0V, I_S=-1A			-1.2	V

Notes :

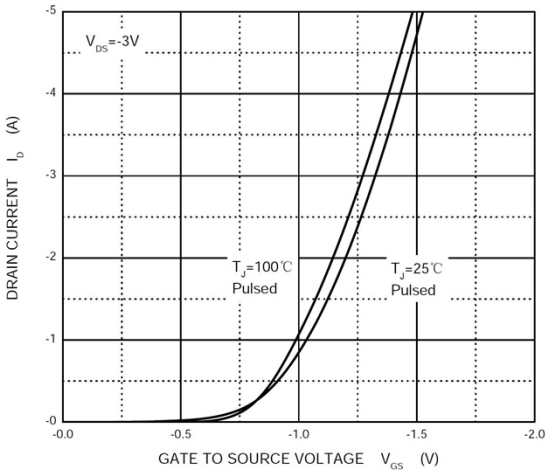
1. Repetitive Rating: Pulse width limited by maximum junction temperature.

Typical Characteristics

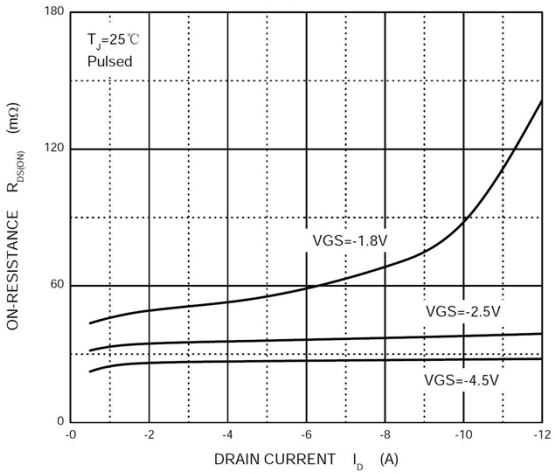
Output Characteristics



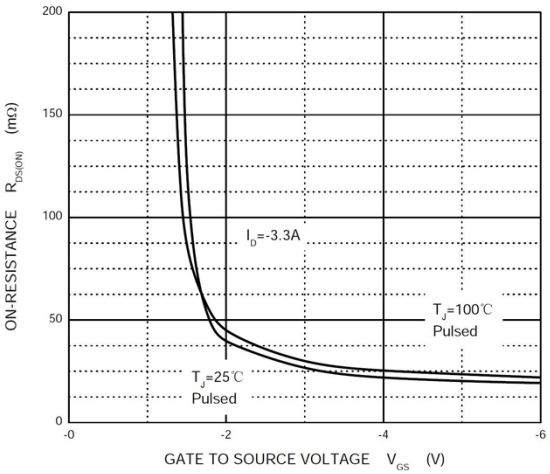
Transfer Characteristics



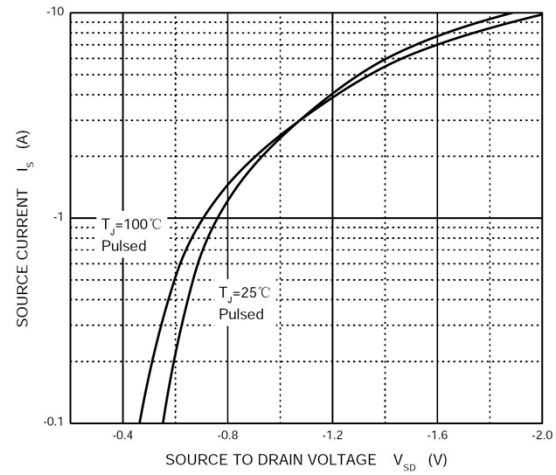
$R_{DS(ON)}$ —— I_D



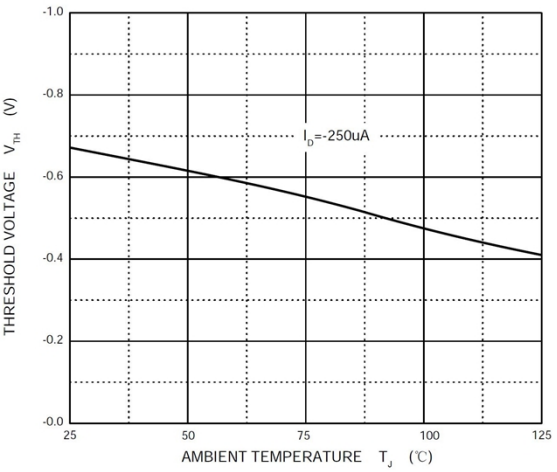
$R_{DS(ON)}$ —— V_{GS}



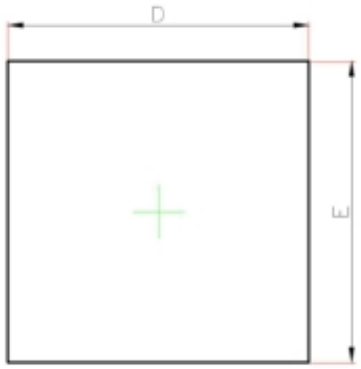
I_S —— V_{SD}



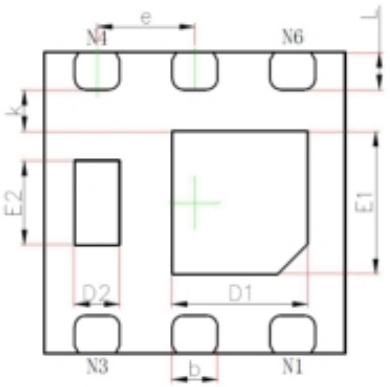
Threshold Voltage



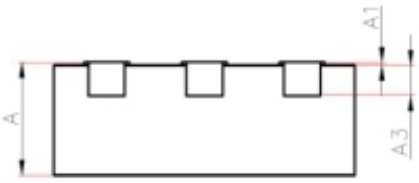
DFN2*2-6L-J Package Information



TOP VIEW



BOTTOM VIEW



SIDE VIEW

Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.700	0.800	0.028	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