



Product Summary

V _{(BR)DSS}	R _{DS(on)TYP}	I _D
-20V	30mΩ@-4.5V	-5A
	40mΩ@-2.5V	
	70mΩ@-1.8V	

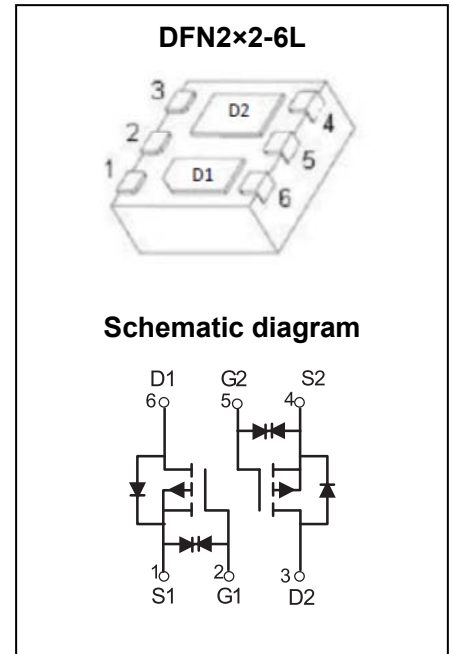
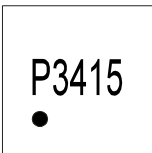
Feature

- Trench Technology Power MOSFET
- Low R_{DS(ON)}
- Low Gate Charge
- Low Gate Resistance

Application

- DC/DC Converter
- Power Management

MARKING:



ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain - Source Voltage	V _{DS}	-20	V
Gate - Source Voltage	V _{GS}	±10	V
Continuous Drain Current ^{1,5}	I _D	-5	A
Pulsed Drain Current ²	I _{DM}	-20	A
Power Dissipation ⁵	P _D	2	W
Thermal Resistance from Junction to Ambient ⁵	R _{θJA}	62.5	°C/W
Junction Temperature	T _J	150	°C
Storage Temperature	T _{STG}	-55~ +150	°C

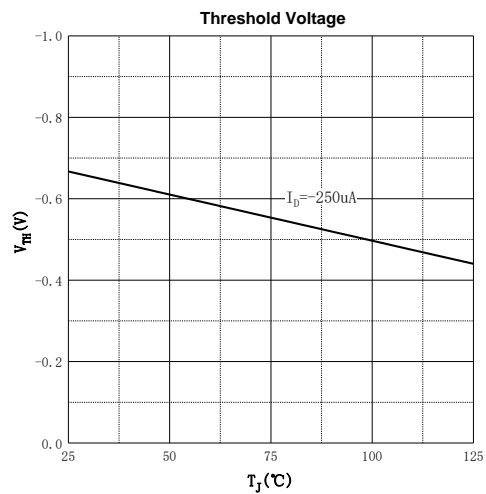
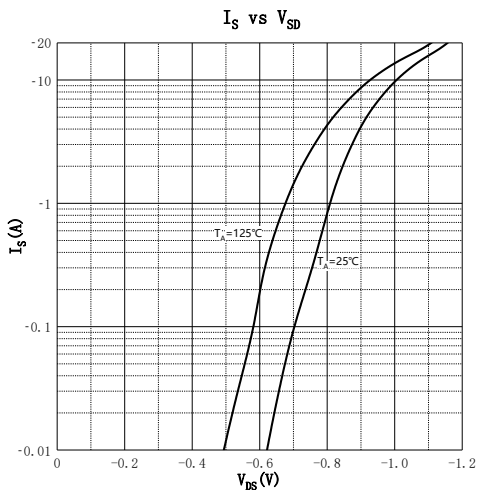
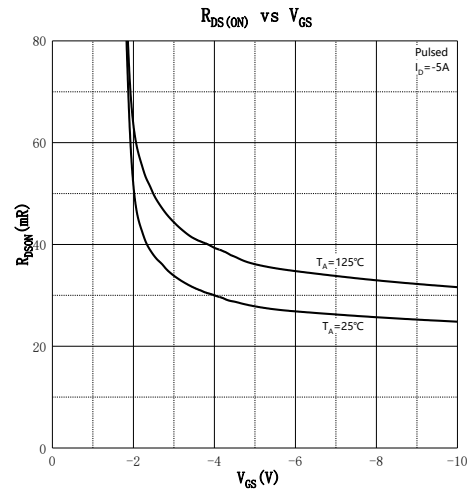
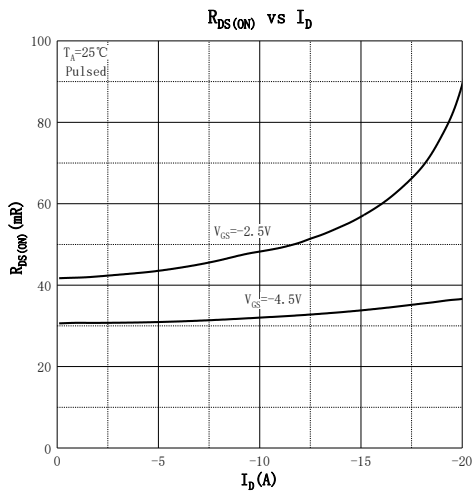
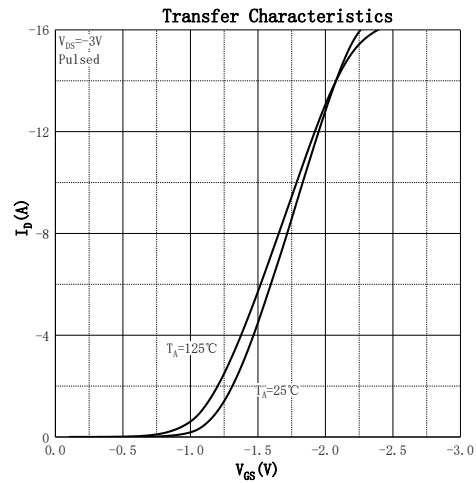
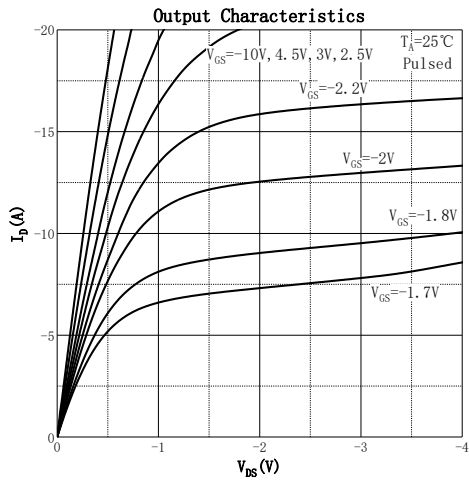
MOSFET ELECTRICAL CHARACTERISTICS ($T_J = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Type	Max	Unit
Off Characteristics						
Drain - Source Breakdown Voltage	$V_{(BR)DSS}$	$V_{GS} = 0V, I_D = -250\mu A$	-20			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -16V, V_{GS} = 0V$			-1	μA
Gate - Body Leakage Current	I_{GSS}	$V_{GS} = \pm 8V, V_{DS} = 0V$			± 5	μA
On Characteristics³						
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = -250\mu A$	-0.3	-0.6	-1	V
Drain-source On-resistance	$R_{DS(on)}$	$V_{GS} = -4.5V, I_D = -4.0A$		30	50	m Ω
		$V_{GS} = -2.5V, I_D = -4.0A$		40	60	
		$V_{GS} = -1.8V, I_D = -2.0A$		70	100	
Forward Transconductance	g_{FS}	$V_{DS} = -4.5V, I_D = -4.0A$	2			S
Dynamic Characteristics						
Input Capacitance	C_{iss}	$V_{DS} = -10V, V_{GS} = 0V, f = 1MHz$		820		pF
Output Capacitance	C_{oss}			138		
Reverse Transfer Capacitance	C_{rss}			123		
Gate Resistance	R_g	$V_{DS} = 0V, V_{GS} = 0V, f = 1MHz$		5		Ω
Switching Characteristics						
Total Gate Charge	Q_g	$V_{DS} = -10V, V_{GS} = -4.5V, I_D = -5.0A$		17		nC
Gate-source Charge	Q_{gs}			1.2		
Gate-drain Charge	Q_{gd}			4.7		
Turn-on Delay Time	$t_{d(on)}$	$V_{DD} = -10V, V_{GS} = -4.5V,$ $R_L = 2\Omega, R_G = 3\Omega$		9.4		ns
Turn-on Rise Time	t_r			18		
Turn-off Delay Time	$t_{d(off)}$			80		
Turn-off Fall Time	t_f			40		
Source - Drain Diode Characteristics						
Diode Forward Voltage ³	V_{SD}	$V_{GS} = 0V, I_S = -1.0A$			-1.2	V

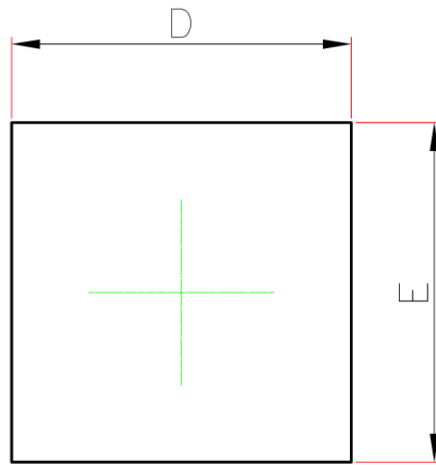
Notes :

- 1.The maximum current rating is limited by Chip.
- 2.Pulse Test : Pulse Width $\leq 10\mu s$, duty cycle $\leq 1\%$.
- 3.Pulse Test : Pulse Width $\leq 300\mu s$, duty cycle $\leq 2\%$.
- 4.The power dissipation P_D is limited by $T_{J(MAX)} = 150^\circ\text{C}$.
- 5.Device mounted on $1in^2$ FR-4 board with 2oz. Copper, in a still air environment with $T_A = 25^\circ\text{C}$.

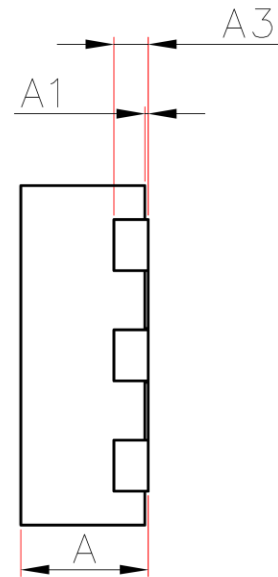
Typical Characteristics



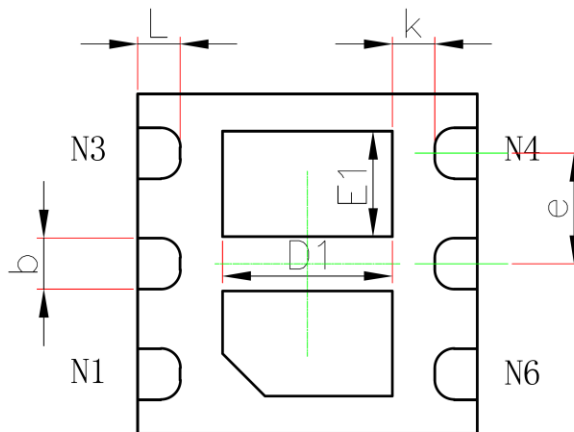
DFN2×2-6L Package Information



TOP VIEW



SIDE VIEW



BOTTOM VIEW

Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.700	0.800	0.028	0.031
A1	0	0.050	0	0.002
A3	2.03REF		0.008REF	
D	1.900	2.100	0.075	0.083
E	1.900	2.100	0.075	0.083
D1	0.900	1.100	0.035	0.043
E1	0.520	0.720	0.020	0.028
k	0.200MIN		0.008MIN	
b	0.250	0.350	0.010	0.014
e	0.65BSC		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\(格瑞宝\)](#)