



JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

DFNWB2*2-6L-A Plastic-Encapsulate MOSFETS

CJLJF3117P P-Channel Power MOSFET

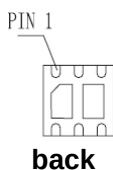
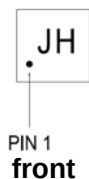
FEATURE

- Featuring a MOSFET and Schottky Diode
- Independent Pinout Provides Circuit Design Flexibility
- Low Profile (<0.8mm) for Easy Fit in Thin Environment
- High Current Schottky Diode

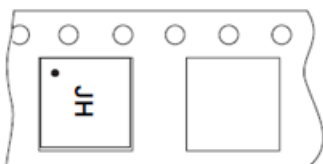
APPLICATIONS

- Optimized for Portable Applications like Cell Phones , Digital Cameras, Media Players, etc
- DC-DC Buck Circuits
- Li-ion Battery Applications
- Color Display and Camera Flash Regulators

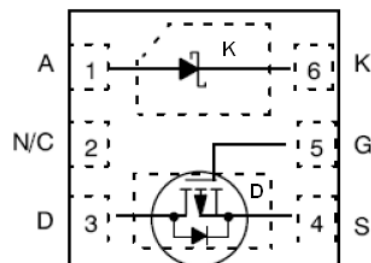
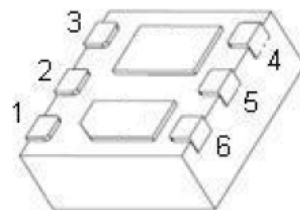
MARKING:



Tape Drawing (Unit : mm)



DFNWB2*2-6L-A



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

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	-20	V
Gate-Source Voltage	V_{GS}	± 8	
Continuous Drain Current	I_D	-3.3	A
Power Dissipation	P_D	0.75	W
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	167	$^{\circ}\text{C/W}$
Maximum Power Dissipation*	P_D	1.5	W
Thermal Resistance from Junction to Ambient*	$R_{\theta JA}$	83.3	$^{\circ}\text{C/W}$
Storage Temperature	T_j	150	$^{\circ}\text{C}$
Junction Temperature	T_{stg}	-55 ~ +150	

*Maximum power dissipation is calculated assuming that the device is mounted on infinite heat sink.

MOSFET ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
On/Off Characteristics						
Drain-source breakdown voltage	V _{(BR)DSS}	V _{GS} = 0V, I _D =-250μA	-20			V
Gate-threshold voltage	V _{GS(th)}	V _{DS} =V _{GS} , I _D =-250μA	-0.4		-1	
Gate-body leakage current	I _{GSS}	V _{DS} =0V, V _{GS} =±8V			±100	nA
Zero gate voltage drain current	I _{DSS}	V _{DS} =-16V, V _{GS} =0V			-1	μA
Drain-source on-state resistance (note 1)	R _{DS(on)}	V _{GS} =-4.5V, I _D =-2.0A			100	mΩ
		V _{GS} =-2.5V, I _D =-2.0A			135	
		V _{GS} =-1.8V, I _D =-1.6A			250	
Forward transconductance (note 1)	g _{FS}	V _{DS} =-5V, I _D =-2A	2.5			S
Charges , Capacitances and Gate resistance (note2)						
Input capacitance	C _{iSS}	V _{DS} =-10V,V _{GS} =0V,f =1MHz		531		pF
Output capacitance	C _{oSS}			91		
Reverse transfer capacitance	C _{rSS}			56		
Total gate charge	Q _g	V _{DS} =-10V,V _{GS} =-4.5V,I _D =-2A		5.5	6.2	nC
Gate-source charge	Q _{gs}			1.0		
Gate-drain charge	Q _{gd}			1.4		
Gate Resistance	R _g			8.8		
Switching times (note2)						
Turn-on delay time	t _{d(on)}	V _{DD} =-5V, I _D =-1A, V _{GS} =-4.5V,R _G =6Ω		5.2		ns
Rise time	t _r			13.2		
Turn-off delay time	t _{d(off)}			13.7		
Fall time	t _f			19.1		
Source-drain diode characteristics						
Forward on voltage (note1)	V _{SD}	V _{GS} =0V, I _S =-1A			-1	V

Notes: 1. Pulse Test : Pulse width ≤300μs, duty cycle ≤2%.

2. These parameters have no way to verify.

SCHOTTKY DIODE MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	30	V
DC blocking voltage	V _R	30	
Average rectified forward current	I _F	2	A

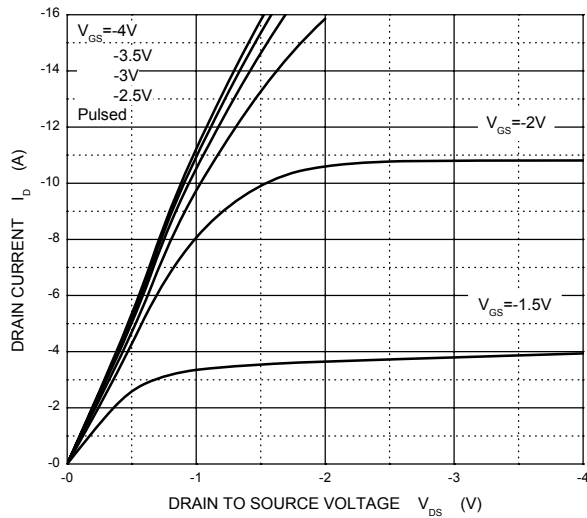
SCHOTTKY DIODE ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Forward voltage	V _F	I _F = 0.1A			0.39	V
		I _F = 1A			0.55	
Reverse current	I _R	V _R = 30V			20	μA
		V _R = 20V			8	
		V _R = 10V			4.5	
Total capacitance	C _{tot}	V _R = 5V, f = 1MHz		30		pF

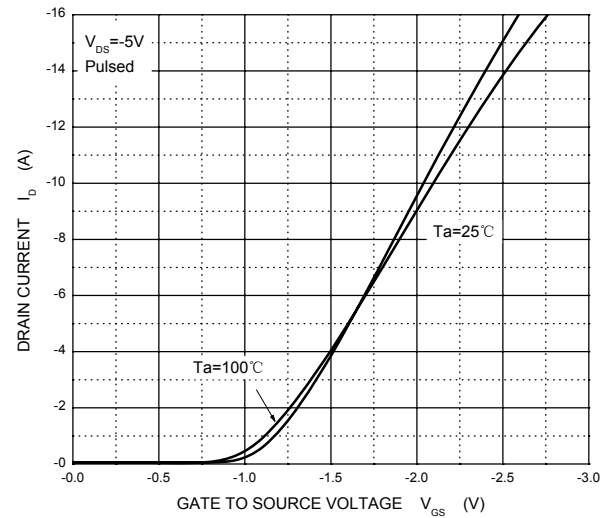
Typical Characteristics

CJLJF3117P

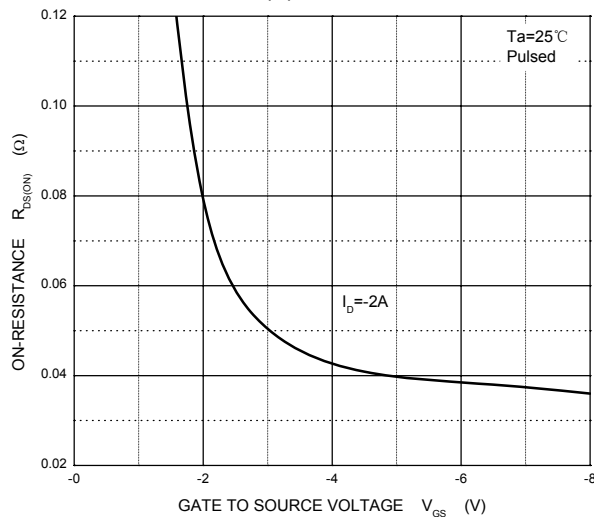
Output Characteristics



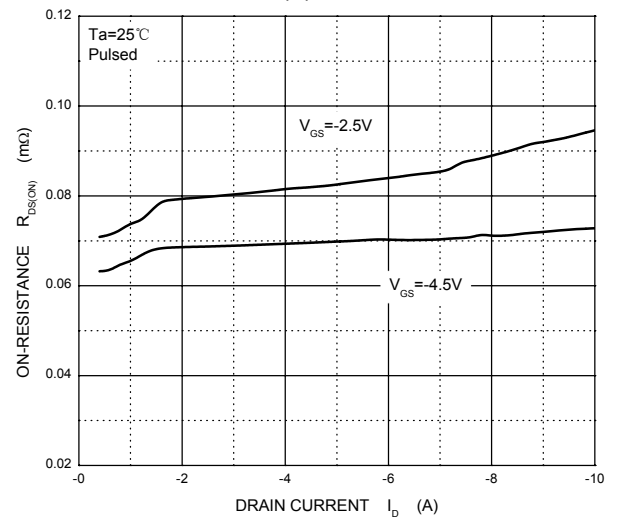
Transfer Characteristics



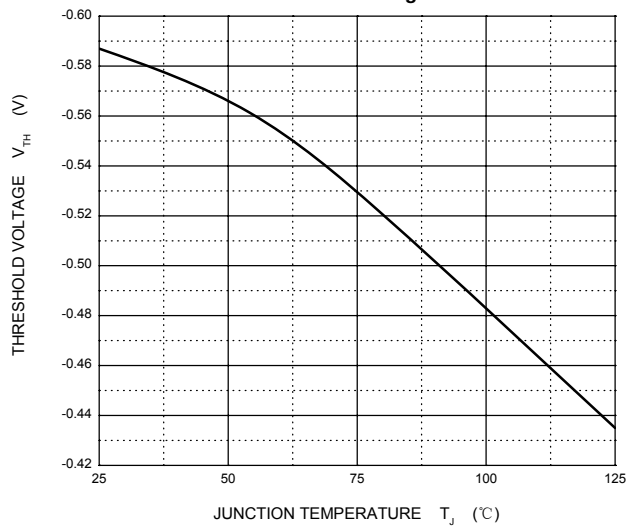
$R_{DS(ON)}$ — V_{GS}



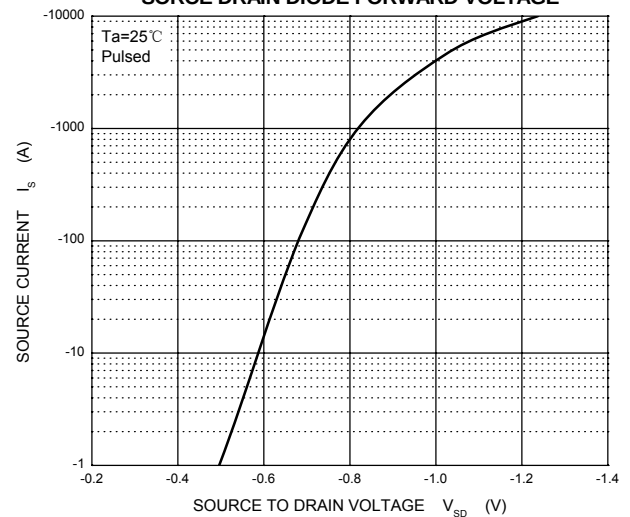
$R_{DS(ON)}$ — I_D



Threshold Voltage



SOURCE DRAIN DIODE FORWARD VOLTAGE



Schottky Characteristics

