DFN2×2B-6L P MOS

P-Channel Enhancement Mode Field Effect Transistor in a DFN2×2B-6L Plastic Package.

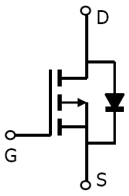
V_{DS} (V) = -16V I_D = -12A

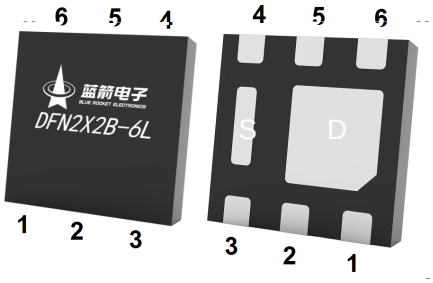
$R_{DS(ON)}$@-4.5V ≤ 15mΩ(Type.13mΩ)

$R_{DS(ON)}$@-2.5V ≤ 25mΩ(Type.18mΩ)

HF Product.

Power Management in Notebook computer, Portable Equipment and Battery powered systems.





出脚	定义
Pin1	D
Pin2	D
Pin3	G
Pin4	S
Pin5	D
Pin6	D

See Marking Instructions.

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DSS}	-16	V
Gate-Source Voltage		V_{GSS}	±10	V
Continuous Drain Current		I_D (T_a=25)	-12	A
Pulsed Drain Current		I_{DM}	-42	A
Power Dissipation for Single Operation		P_D (T_a=25)	3.0	W
Maximum Junction Temperature		T_j	150	
Storage Temperature Range		T_{stg}	-55 150	
Thermal Resistance-Junction to Ambient	t 10s	$R_{\theta JA}$	41.7	/W
	Steady State		75	/W

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	I_D=-250μA V_{GS}=0V	-16	-19		V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=-16V V_{GS}=0V			-1.0	μA
Gate-Body leakage current	I_{GSS}	V_{DS}=0V V_{GS}=±10V			±100	nA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=VGS I_D=-250μA	-0.3	-0.7	-1.5	V
Static Drain-Source On-Resistance	$R_{DS(ON)}$	V_{GS}=-4.5V I_D=-10A		13	15	mΩ
		V_{GS}=-2.5V I_D=-5A		18	25	
Diode Forward Voltage	V_{SD}	I_S=-1A V_{GS}=0V			-1.2	V
Gate resistance	Rg	V_{GS}=0V, V_{DS}=0V, f=1MHz		10		
Input Capacitance	C_{iss}	V_{GS}=0V V_{DS}=-8V f=1MHz		1750		pF
Output Capacitance	C_{oss}			300		
Reverse Transfer Capacitance	C_{rss}			250		
Total Gate Charge	Q_g	V_{GS}=-4.5V V_{DS}=-6V I_D=-10A		13		nC
Gate-Source Charge	Q_{gs}			1.9		
Gate-Drain Charge	Q_{gd}			3.5		

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-on Delay Time	$t_{d(ON)}$	V_{GS}=-4.5V V_{DS}=-6V R_L=0.75Ω R_{GEN}=3Ω		11.3		ns
Turn-on Rise Time	t_r			25.4		
Turn-off Delay Time	$t_{d(OFF)}$			72		
Turn-off Fall Time	t_f			43.5		

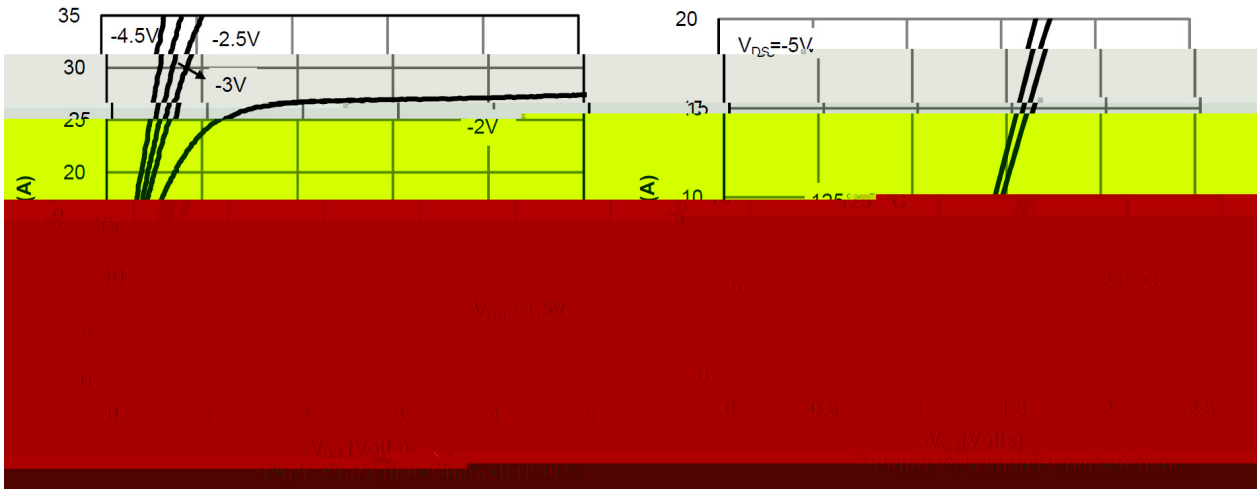


Figure 1: On-Region Characteristics

Figure 2: Transfer Characteristics

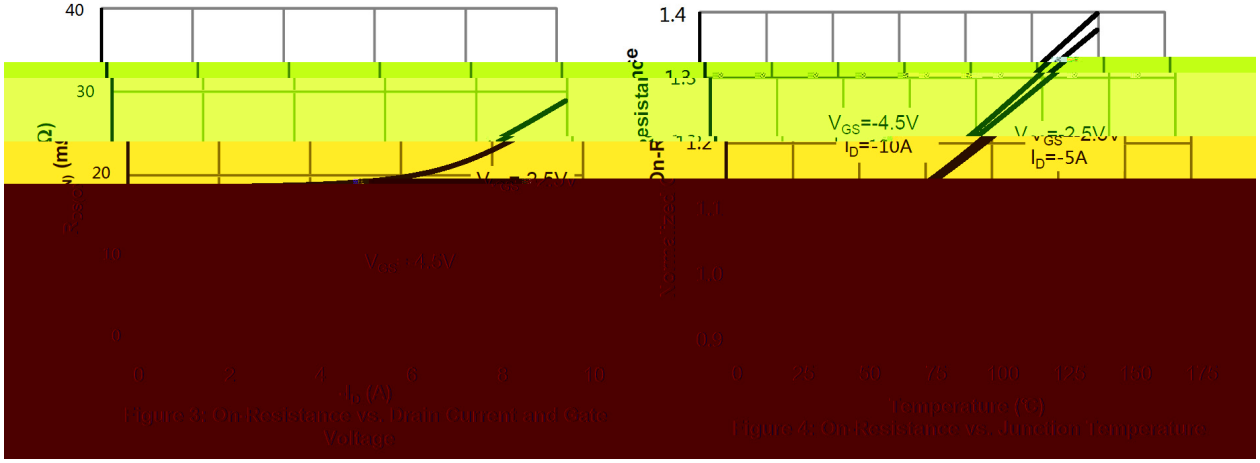


Figure 3: On-Resistance vs. Drain Current and Gate Voltage

Figure 4: On-Resistance vs. Junction Temperature

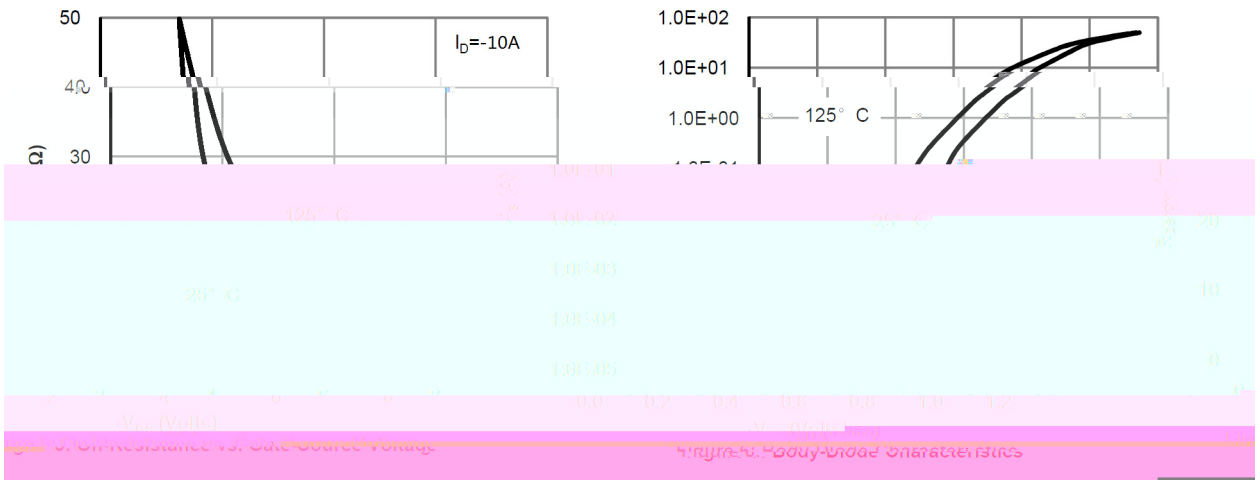
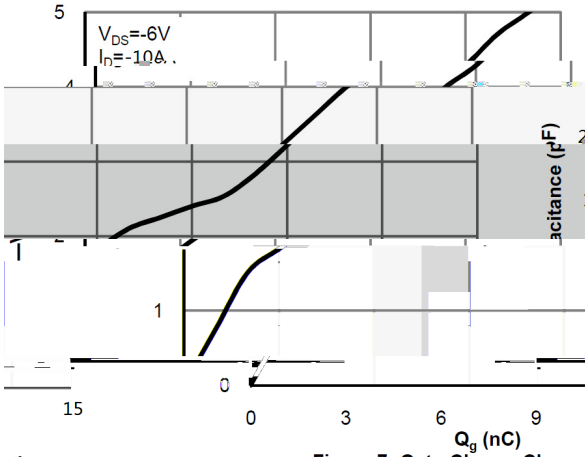


Figure 5: On-Resistance vs. Gate-Source Voltage

Figure 6: Body-Diode Characteristics

/



stics

Figure 7: Gate-Charge Characteristics

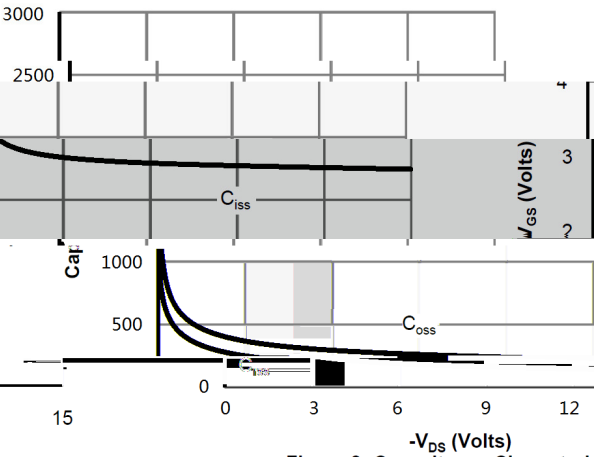


Figure 8: Capacitance Characteris

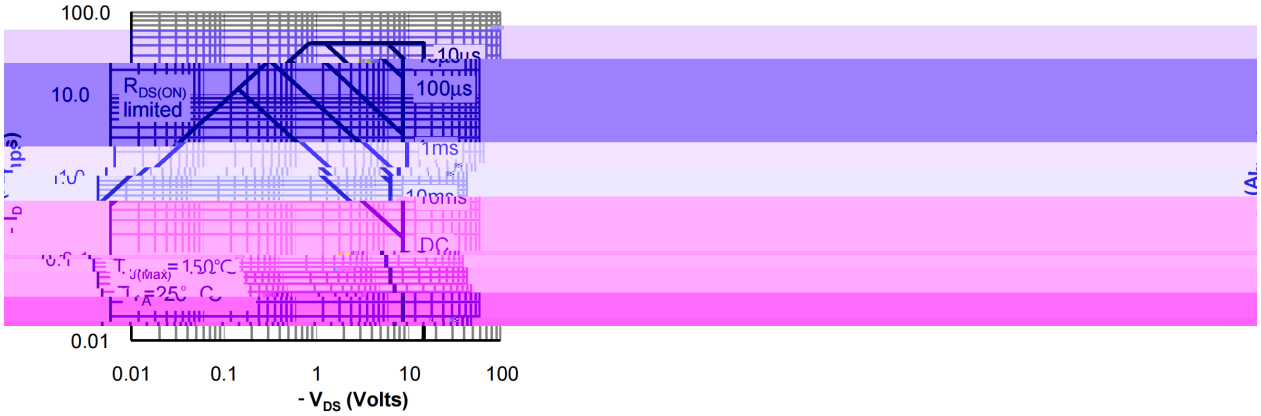
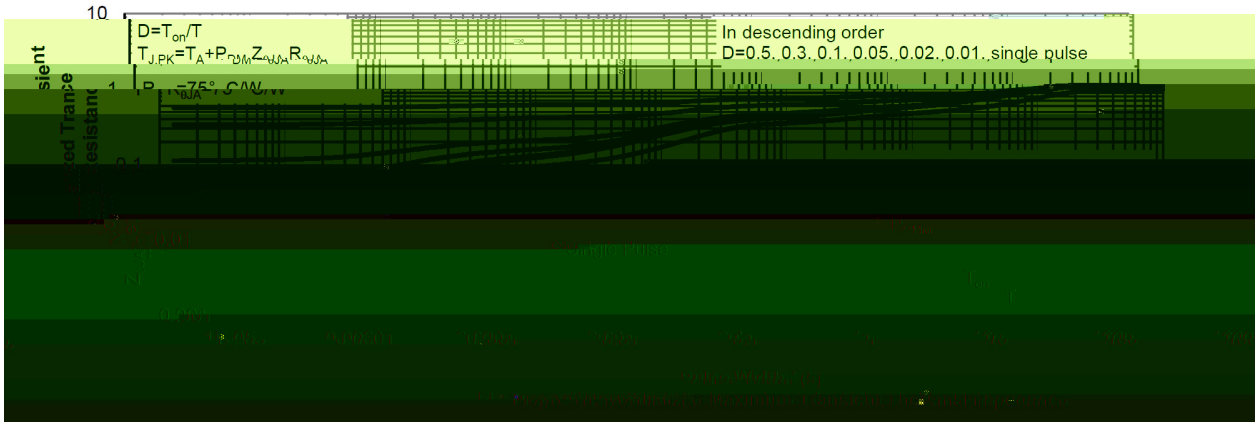
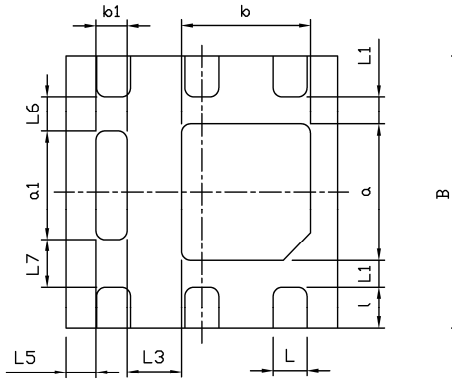
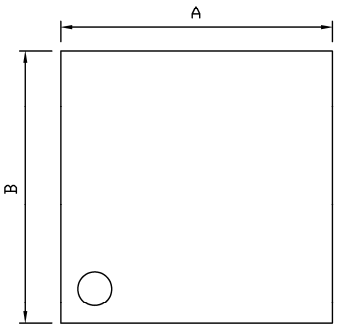


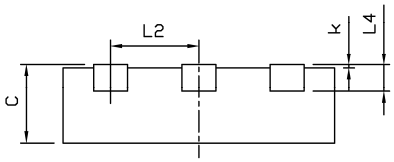
Figure 9: Maximum Forward Biased Safe



DFN2×2B-6L-0.5 Unit:mm







Dimensions In Millimeters			
Symbol	MIN	TYP	MAX
A	1.95	2.00	2.05
B	1.95	2.00	2.05
C	0.45	0.50	0.55
L	0.25	0.30	0.35
L1	0.10	0.20	0.30
L2	–	0.65	–
L3	0.30	0.40	0.50
L4	–	0.152	–
L5	0.12	0.22	0.32
L6	0.15	0.25	0.35
L7	0.23	0.33	0.43
a	0.90	1.00	1.10
a1	0.72	0.82	0.92
b	0.85	0.95	1.05
b1	0.13	0.23	0.33
l	0.25	0.30	0.35
k	0.00	–	0.05

Rev.01 202006

BR

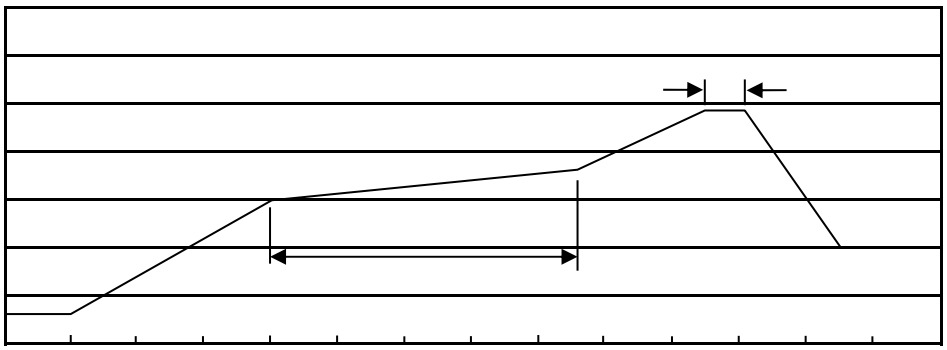
150P016

****

Note:

BR:	Company Code
150P016:	Product Type Code
****:	Lot No. Code, code change with Lot No

Temperature Profile for IR Reflow Soldering(Pb-Free)



		Note:
1	150 180 60 90sec;	1.Preheating:150~180 , Time:60~90sec.
2	245±5 5±0.5sec;	2.Peak Temp.:245±5 , Duration:5±0.5sec.
3	2 10 /sec.	3. Cooling Speed: 2~10 /sec.

260±5	10±1 sec.	Temp.:260±5	Time:10±1 sec

/ REEL

Package Type	Units					Dimension		(unit mm³)
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
DFN2×2B-6L	4,000	10	40,000	4	160,000	7 ×8	210×205×205	445×435×230