

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

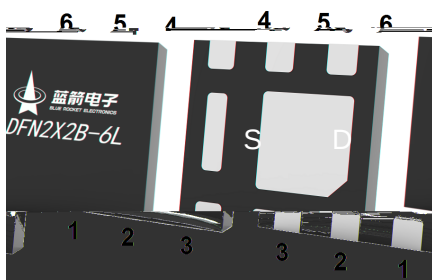
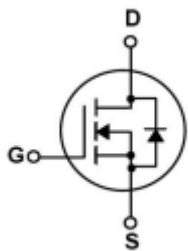
$V_{DS} = 20V$ $I_D = 8A$ ($V_{GS} = \pm 12V$)

$R_{DS(ON)}@10V < 14m\Omega$ (Typ. $12m\Omega$)

$R_{DS(ON)}@4.5V < 20m\Omega$ (Typ. $15m\Omega$)

HF Product.

Suited for low voltage applications such as automotive, DC/DC Converters, and high efficiency switching for power management in portable and battery operated products.



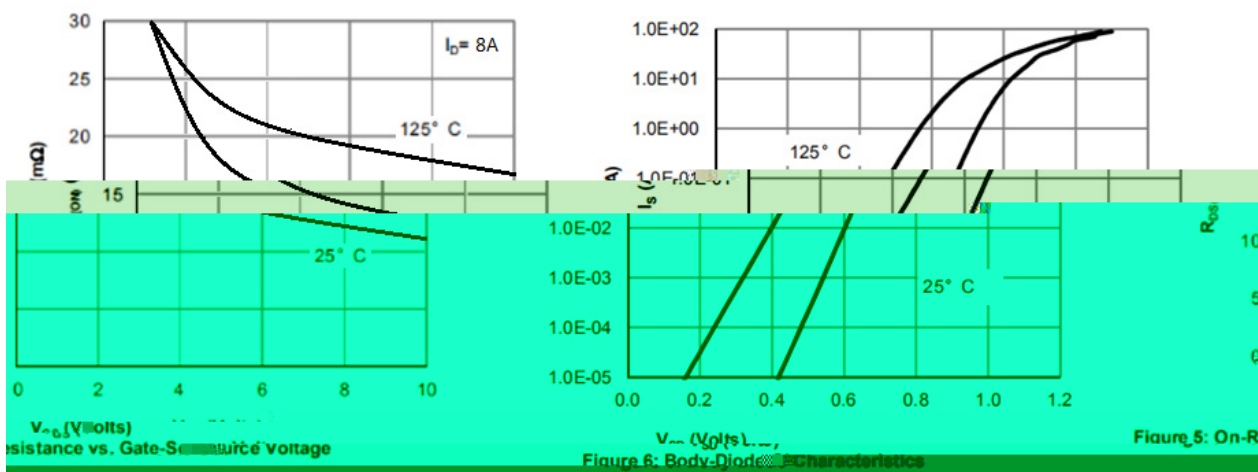
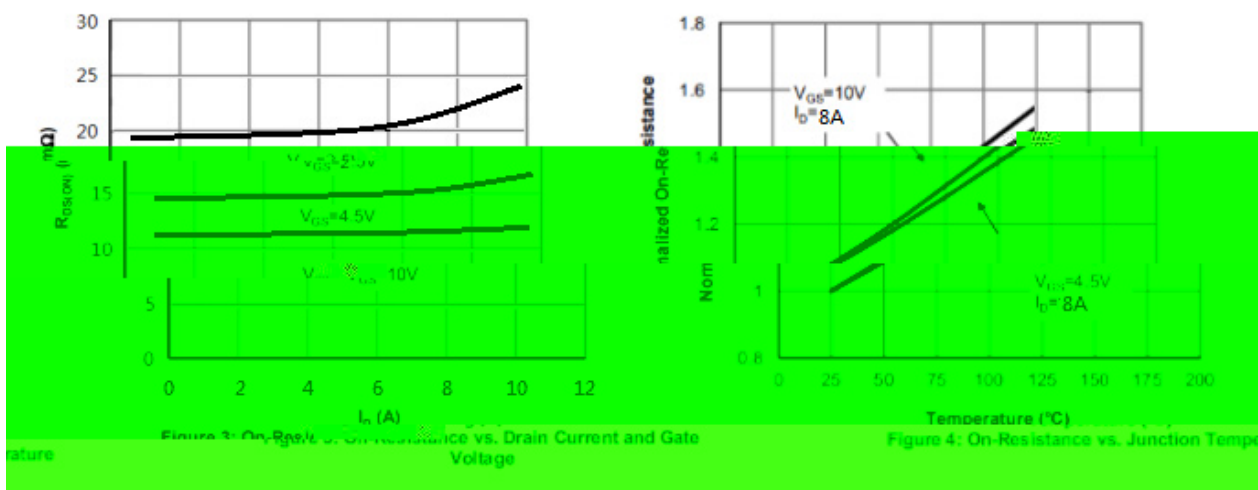
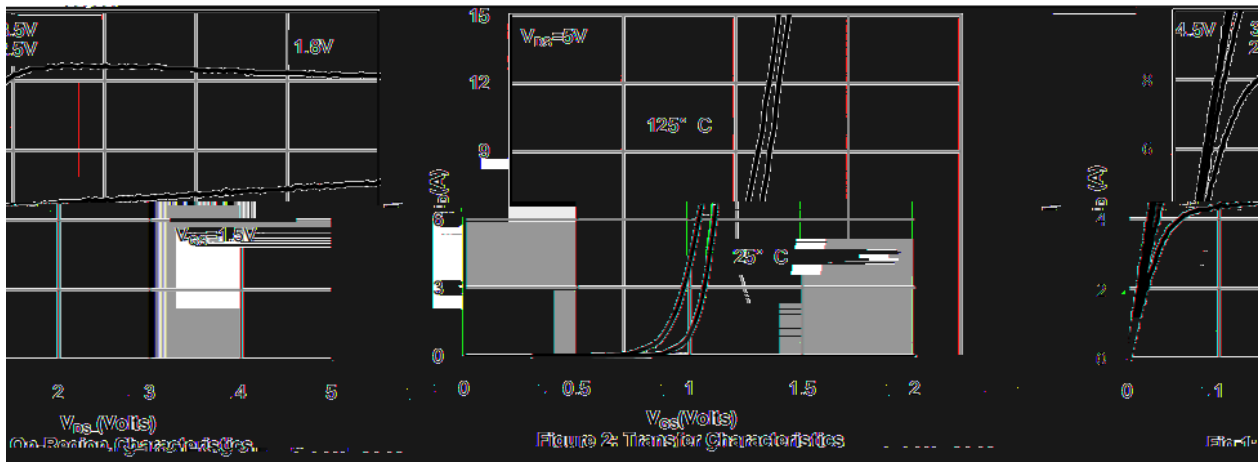
出脚	定义
Pin1	D
Pin2	D
Pin3	G
Pin4	S
Pin5	D
Pin6	D

See Marking Instructions.

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DS}	20	V
Drain Current		I_D	8	A
Gate-Source Voltage		V_{GS}	± 12	V
Avalanche Current		I_{AS}	12	A
Single Pulsed Avalanche Energy		E_{AS}	115	mJ
Power Dissipation		P	2.8	W
Junction Temperature Range		T_j	150	
Storage Temperature Range		T_{stg}	-55~150	
Maximum Junction-to-Ambient	$t \leq 10s$	$R_{\theta JA}$	45	/W
	Steady-State	$R_{\theta JA}$	80	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DS}	$V_{GS}=0V$ $I_D=250 A$	20	22		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=20V$ $V_{GS}=0V$			1.0	A
Gate-Body Leakage Current Forward	I_{GSS}	$V_{GS}=\pm 12V$ $V_{DS}=0V$			± 0.1	A
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10V$ $I_D=8.0A$		12	14	m
		$V_{GS}=4.5V$ $I_D=8.0A$		15	20	m
		$V_{GS}=2.5V$ $I_D=8.0A$		20	35	m
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250 A$	0.4	0.6	1.2	V
Drain-Source Diode Forward Voltage	V_{SD}	$V_{GS}=0V$ $I_F=1.0A$		0.7	1.35	V
Signal Source Resistance	R_g	$F=1MHz$		3.3		
Input Capacitance	C_{iss}	$V_{DS}=10V$ $V_{GS}=0V$ $f=1.0MHz$		865		pF
Output Capacitance	C_{oss}			105		
Reverse Transfer Capacitance	C_{rss}			55		
Turn-On Delay Time	$t_{d(on)}$	$V_{DS}=10V$ $V_{GS}=4.5V$ $R_L=1.25$ $R_{GEN}=3$		2.7		ns
Turn-On Rise Time	t_r			3		
Turn-Off Delay Time	$t_{d(off)}$			37		
Turn-Off Fall Time	t_f			7		

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Gate Charge	Q_g	$V_{DS}=10V$ $V_{GS}=4.5V$ $I_D=8A$		12.5		nC
Gate-Source Charge	Q_{gs}			1.2		
Gate-Drain Charge	Q_{gd}			2.7		



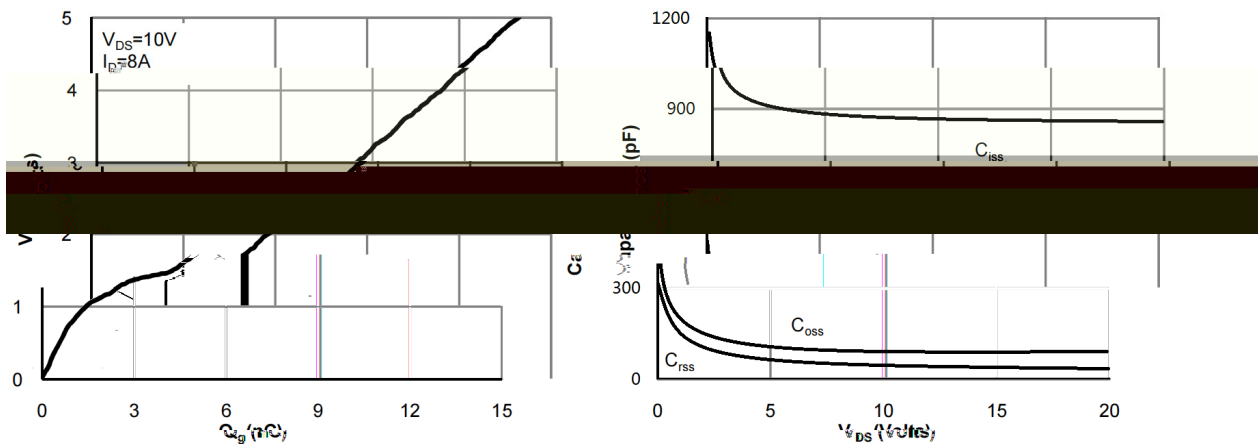


Figure 7: Gate Charge Characteristics Figure 8: Capacitance Characteristics

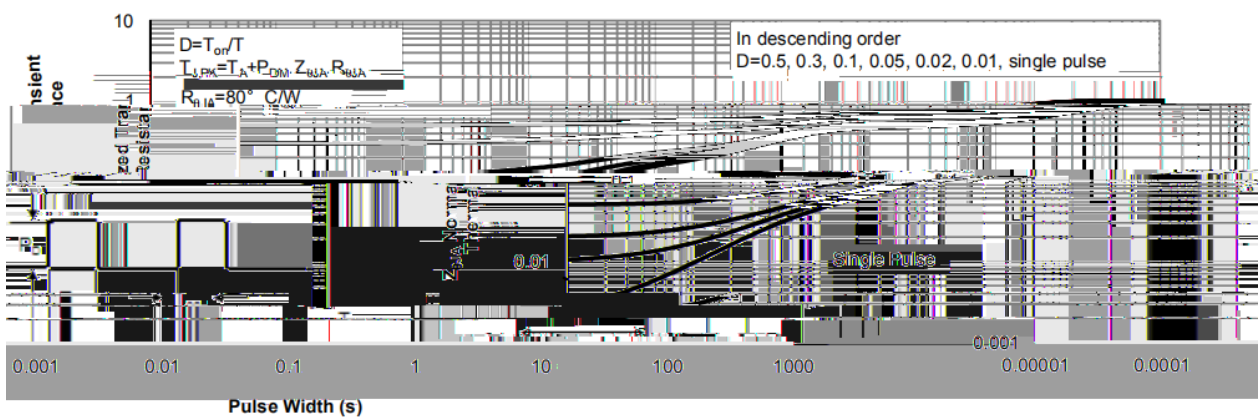
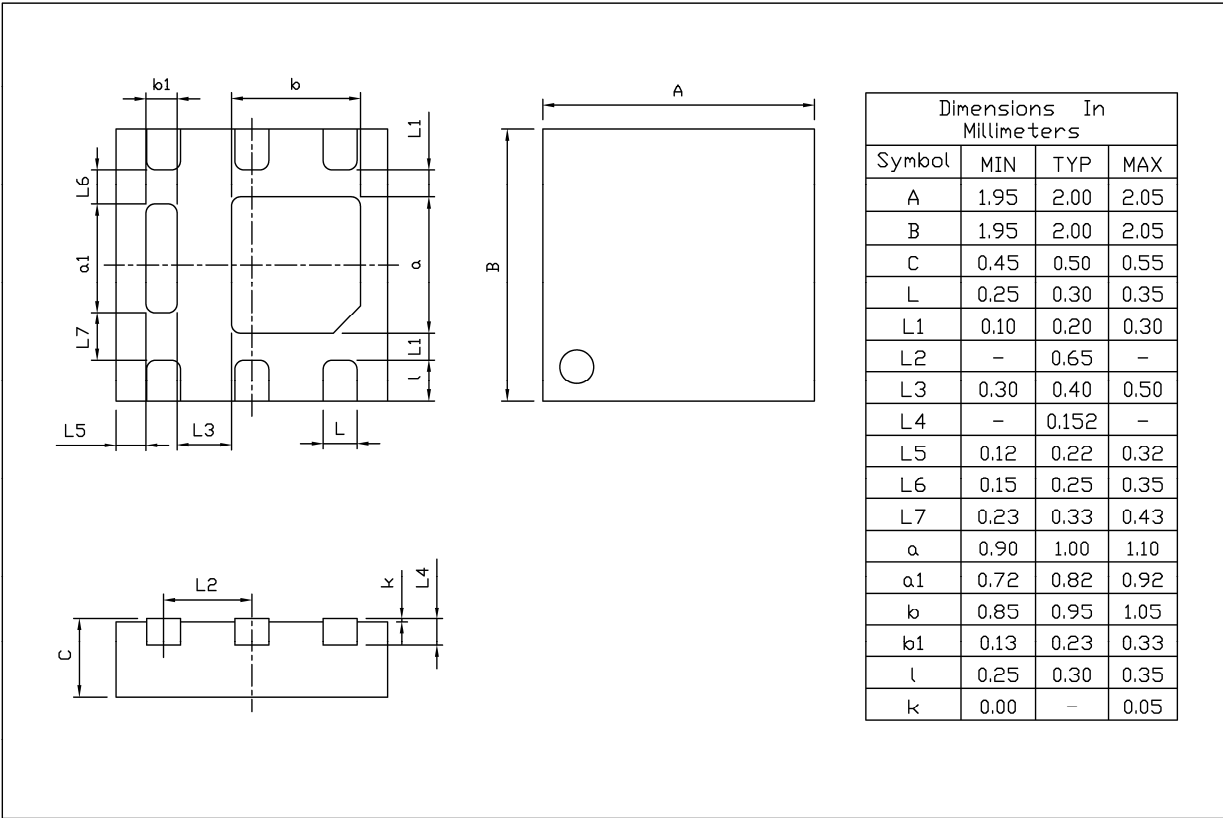


Figure 10: Normalized Maximum Junction Temperature

DFN2 X2B-6L-0.5

Unit:mm



Rev.01 202006



BR

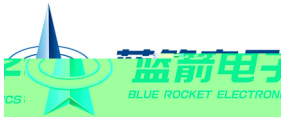
120N02L

Note:

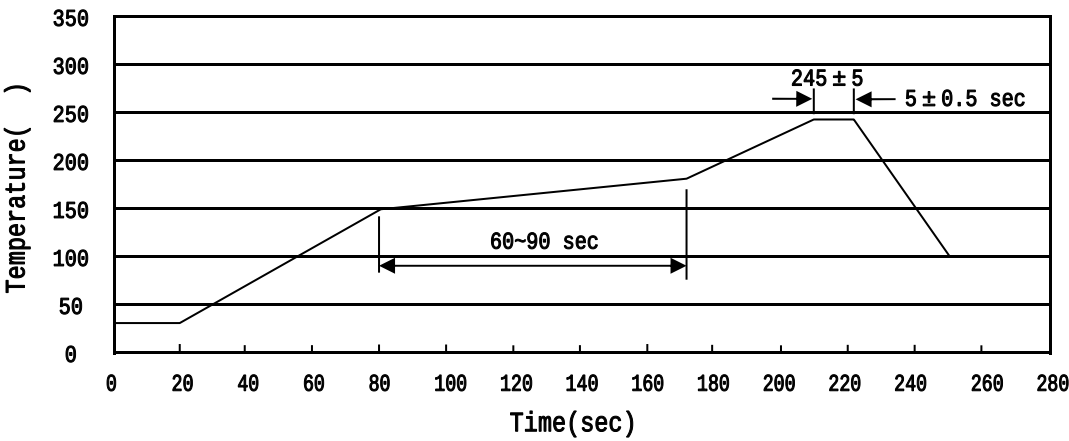
BR: Company Code

120N02L: 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 mm ³)		
DFN2×2B-6L	4,000	10	40,000	4	160,000	7 ×8	210×205×205	445×435×230

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