

描述 / Descriptions

DFN2×2B-6L 塑封封装 P 沟道 MOS 场效应管。
P-Channel Enhancement Mode Field Effect Transistor in a DFN2×2B-6L Plastic Package.

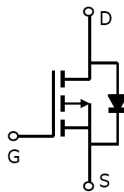
特征 / Features

$V_{DS} (V) = -16V$ $I_D = -12A$
 $R_{DS(ON)}@-4.5V \leq 14m\Omega$ (Type.12.6m Ω)
 $R_{DS(ON)}@-2.5V \leq 25m\Omega$ (Type.17.0m Ω)
 $R_{DS(ON)}@-1.8V \leq 100m\Omega$ (Type.23.5m Ω)
无卤产品。HF Product.

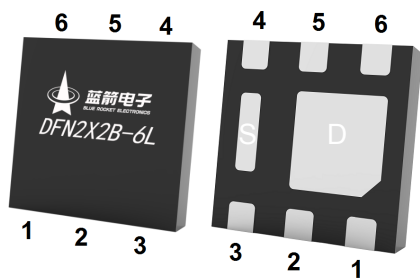
用途 / Applications

用于电源管理，便携式设备和电池供电系统。
Power Management in Notebook computer, Portable Equipment and Battery powered systems.

内部等效电路 / Equivalent Circuit



引脚排列 / Pinning



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

印章代码 / Marking

见印章说明。
See Marking Instructions.

极限参数 / Absolute Maximum Ratings(Ta=25°C)

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Drain-Source Voltage	V_{DSS}	-16	V
Gate-Source Voltage	V_{GSS}	± 10	V
Continuous Drain Current	I_D	-12	A
Pulsed Drain Current	I_{DM}	-42	A
Power Dissipation for Single Operation	P_D	3.0	W
Maximum Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55 ~ 150	°C
Thermal Resistance-Junction to Ambient	$R_{\theta JA}$	41.7	°C/W

电性能参数 / Electrical Characteristics(Ta=25°C)

参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$I_D = -250\mu A$ $V_{GS} = 0V$	-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}	$V_{DS} = 0V$ $V_{GS} = \pm 10V$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}$ $I_D = -250\mu A$	-0.3	-0.7	-1.5	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS} = -4.5V$ $I_D = -10A$		12.6	14	m Ω
		$V_{GS} = -2.5V$ $I_D = -5A$		17.0	25	
		$V_{GS} = -1.8V$ $I_D = -5A$		23.5	100	
Diode Forward Voltage	V_{SD}	$I_S = -1A$ $V_{GS} = 0V$			-1.2	V
Gate resistance	R_g	$V_{GS} = 0V$, $V_{DS} = 0V$, $f = 1MHz$		10.3		Ω
Input Capacitance	C_{iss}	$V_{GS} = 0V$ $V_{DS} = -8V$ $f = 1MHz$		1365		pF
Output Capacitance	C_{oss}			220		
Reverse Transfer Capacitance	C_{rss}			180		
Total Gate Charge	Q_g	$V_{GS} = -4.5V$ $V_{DS} = -10V$ $I_D = -8A$		14.1		nC
Gate-Source Charge	Q_{gs}			1.3		
Gate-Drain Charge	Q_{gd}			3.1		
Turn-on Delay Time	$t_{d(ON)}$	$V_{GS} = -4.5V$ $V_{DS} = -10V$ $I_D = -8A$ $R_g = 3\Omega$		12.2		ns
Turn-on Rise Time	t_r			60.6		
Turn-off Delay Time	$t_{d(OFF)}$			68.6		
Turn-off Fall Time	t_f			41.7		

电参数曲线图 / Electrical Characteristic Curve

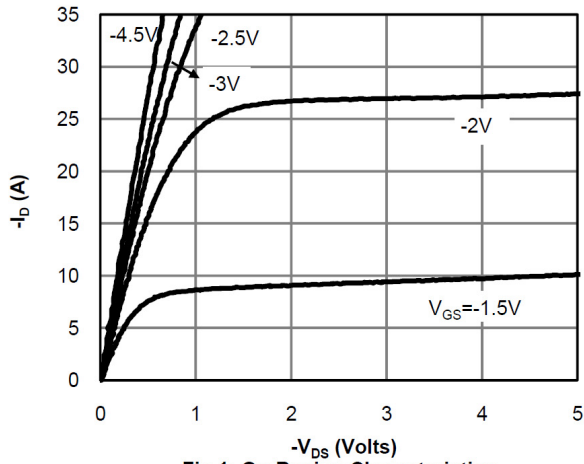


Fig 1: On-Region Characteristics

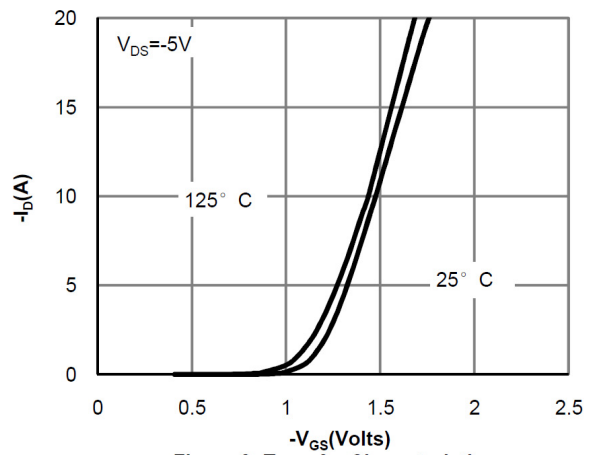


Figure 2: Transfer Characteristics

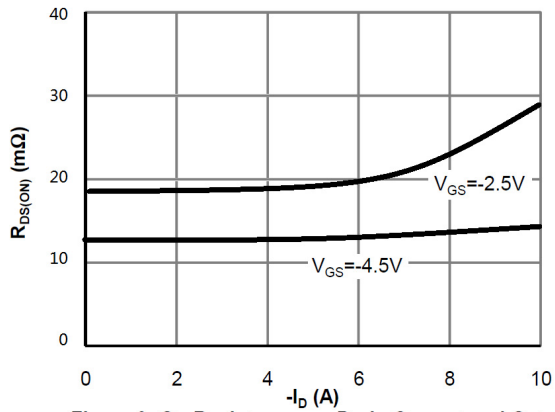


Figure 3: On-Resistance vs. Drain Current and Gate Voltage

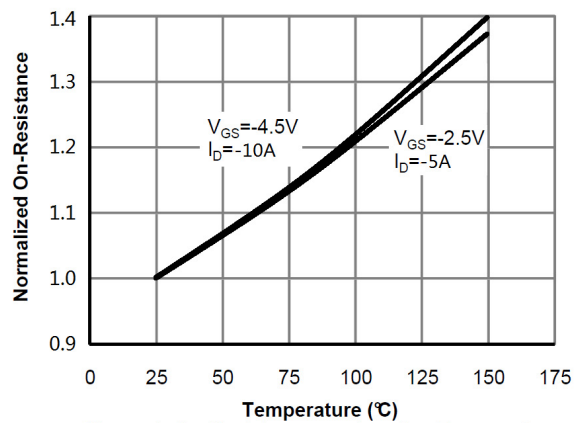


Figure 4: On-Resistance vs. Junction Temperature

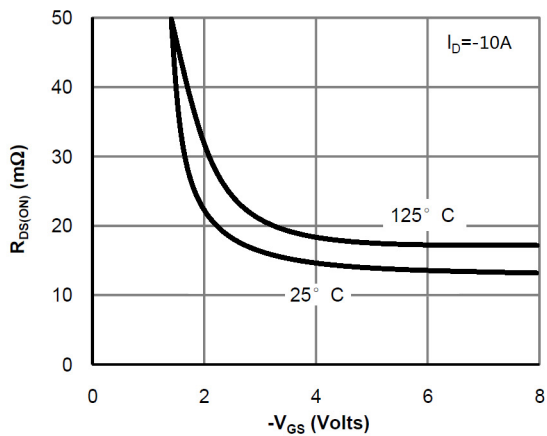


Figure 5: On-Resistance vs. Gate-Source Voltage

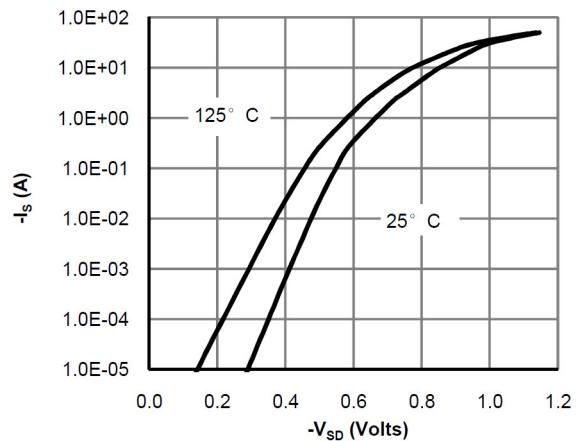
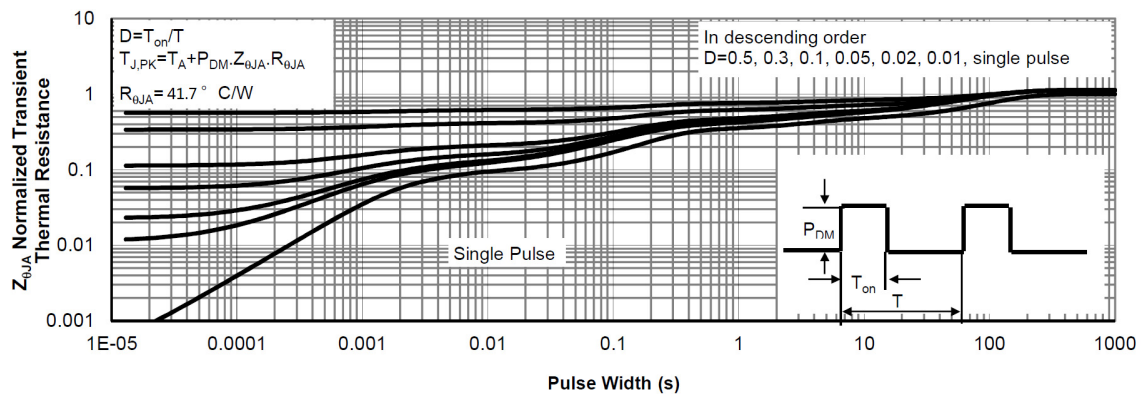
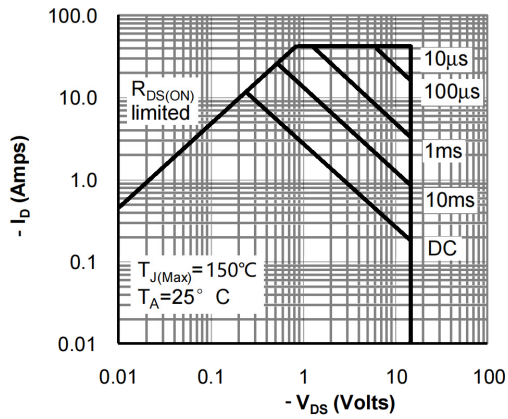
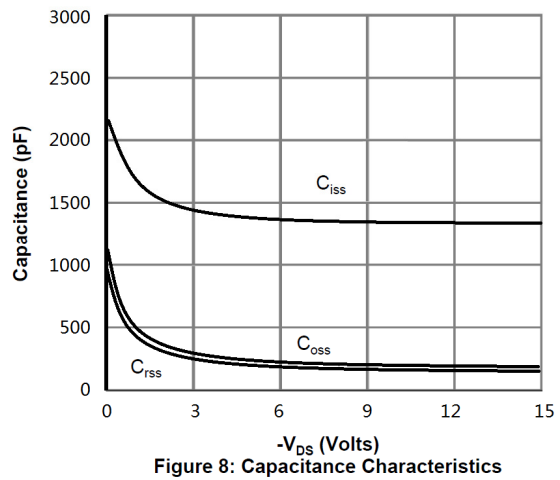
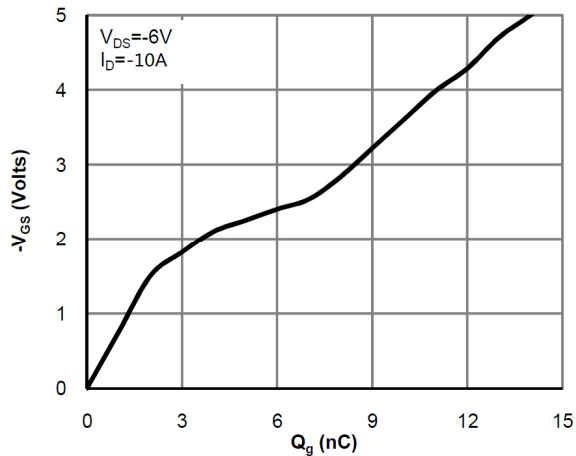


Figure 6: Body-Diode Characteristics

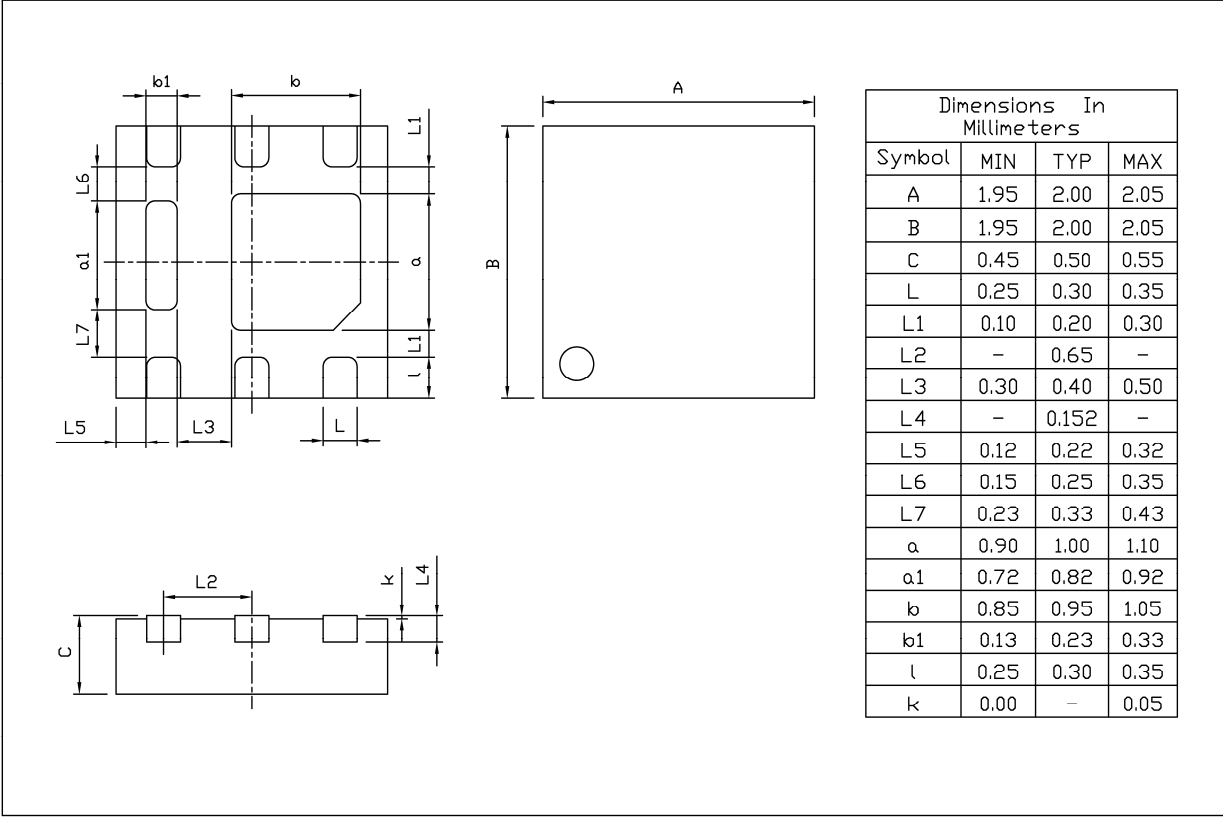
电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions

DFN2 ×2B-6L-0.5

Unit:mm



Rev.01 202006

印章说明 / Marking Instructions



说明：

BR： 为公司代码

130P016： 为型号代码

****： 为生产批号代码，随生产批号变化

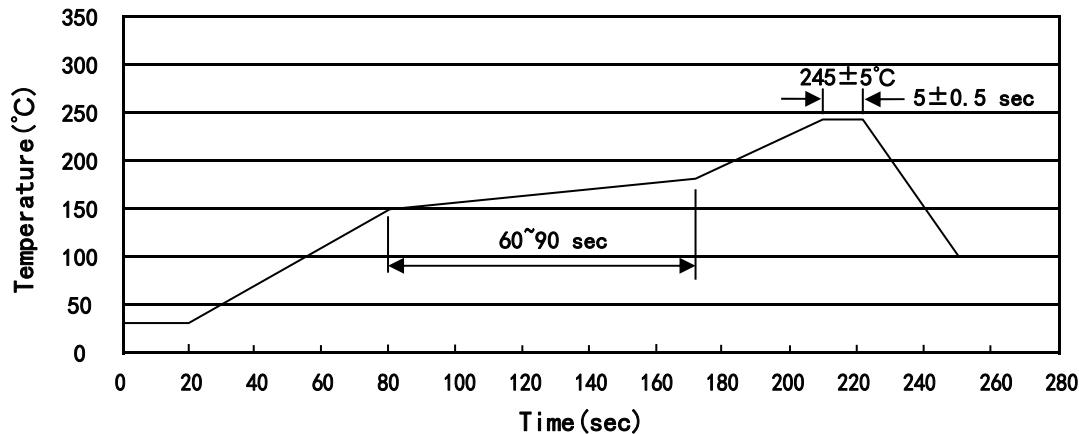
Note:

BR: Company Code

130P016: Product Type Code

****: Lot No. Code, code change with Lot No

回流焊温度曲线图(无铅) / Temperature Profile for IR Reflow Soldering(Pb-Free)



说明：

- 1、预热温度 150~180°C，时间 60~90sec;
- 2、峰值温度 245±5°C，时间持续为 5±0.5sec;
- 3、焊接制程冷却速度为 2~10°C/sec.

Note:

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

耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions

温度：260±5°C

时间：10±1 sec.

Temp.:260±5°C

Time:10±1 sec

包装规格 / Packaging SPEC.

卷盘包装 / REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
DFN2×2B-6L	4,000	10	40,000	4	160,000	7" ×8	210×205×205	445×435×230

使用说明 / Notices

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