

/ Descriptions

DFN2×2B-6L P MOS

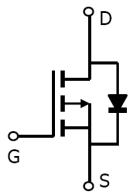
P-Channel Enhancement Mode Field Effect Transistor in a DFN2×2B-6L Plastic Package.

/ 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)

HF Product.

/ Applications

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

/ Equivalent Circuit**/ Pinning****/ Marking**

See Marking Instructions.

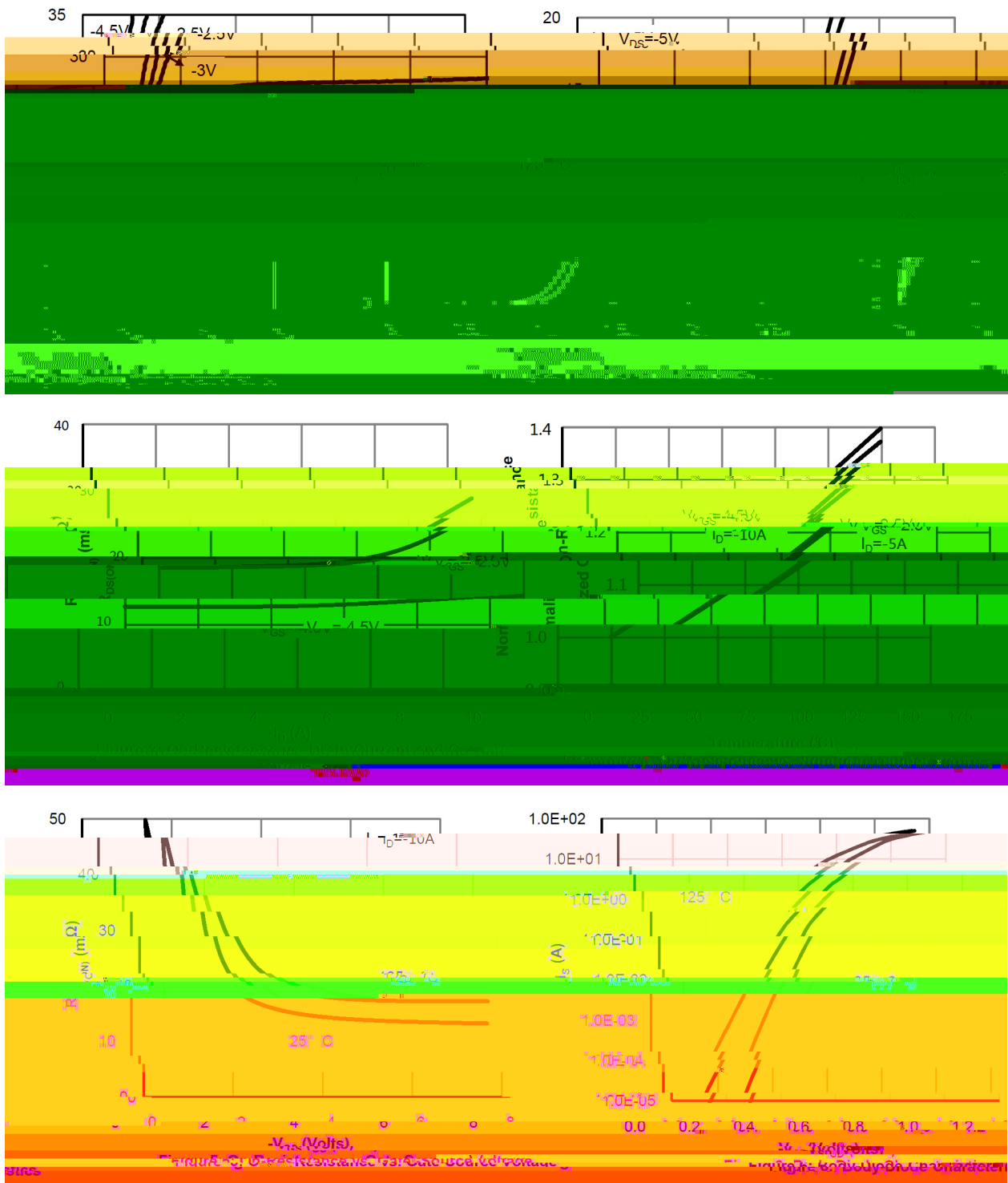
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	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	
Storage Temperature Range	T_{stg}	-55 150	
Thermal Resistance-Junction to Ambient	$R_{\theta JA}$	41.7	/W

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	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
		$V_{GS} = -2.5V$ $I_D = -5A$		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		
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		

/ Electrical Characteristic Curve



Electrical Characteristic Curve

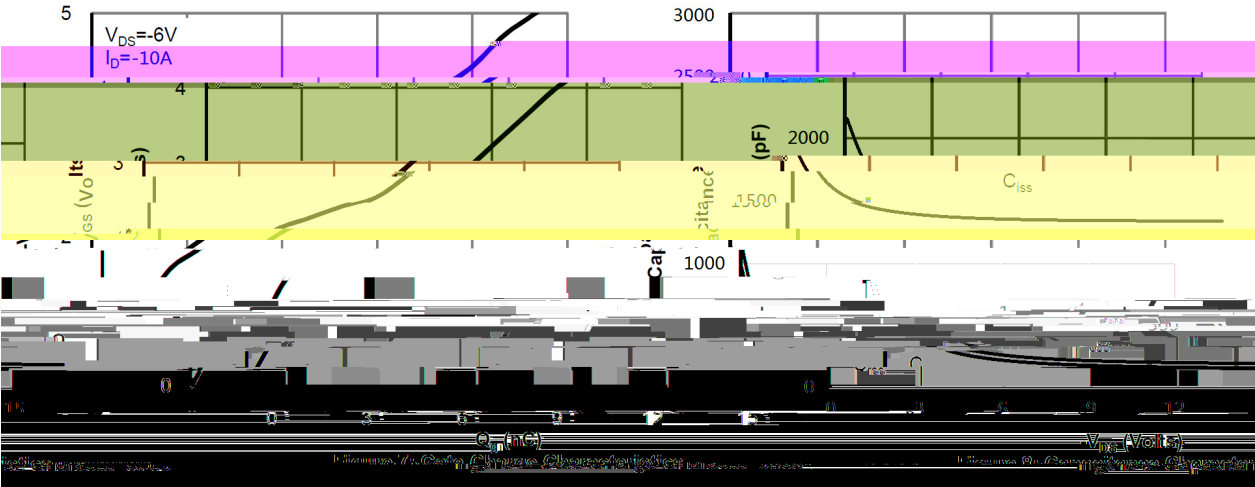
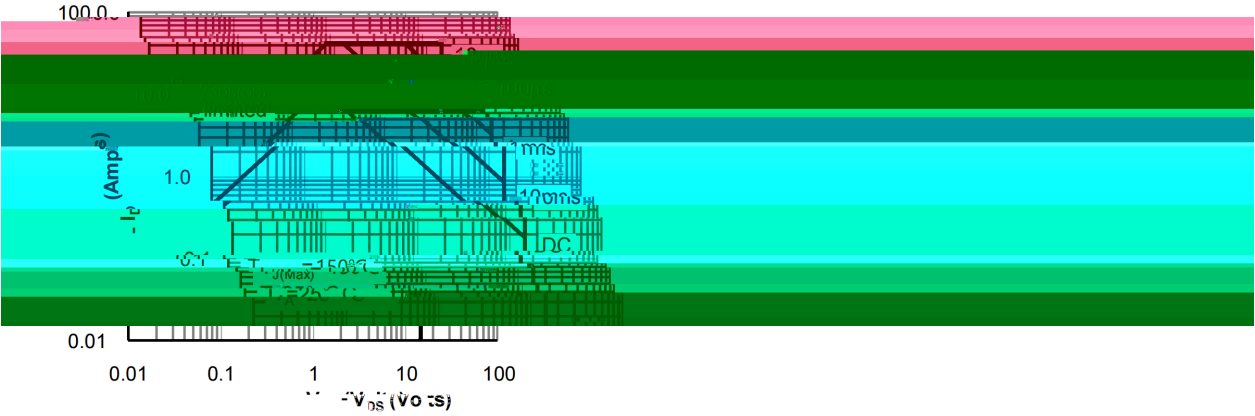
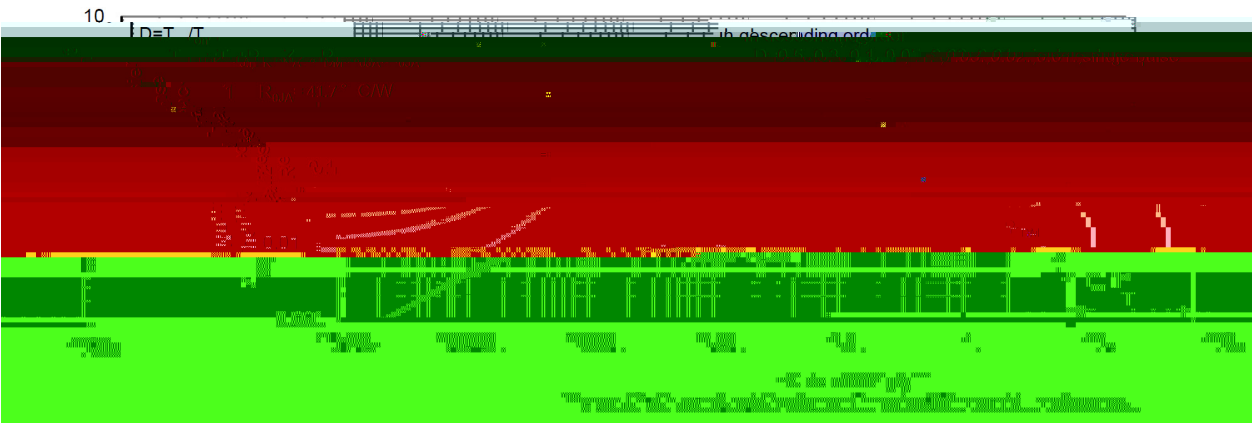


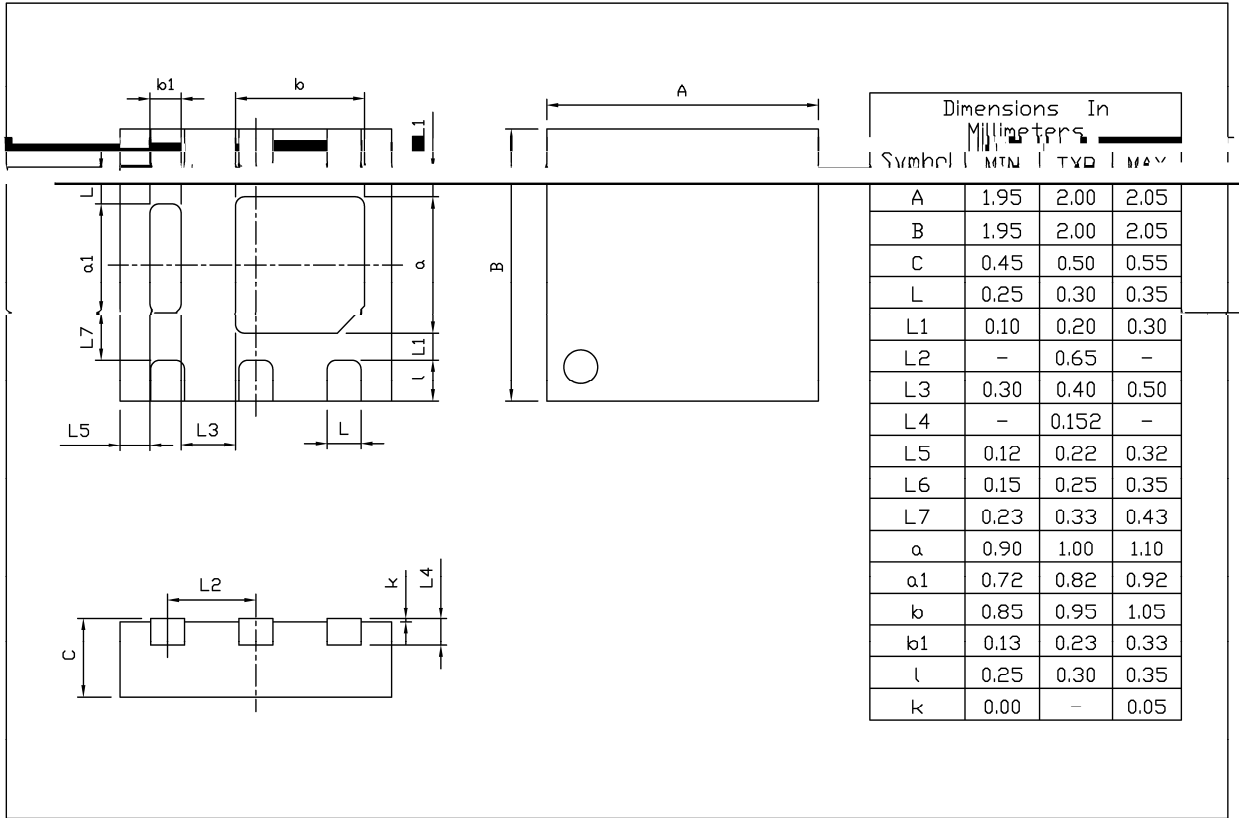
Figure 9: Maximum Forward Bias Safe



/ Package Dimensions

DFN2 X2B-6L-0.5

Unit:mm



Rev.01 202006



/ Marking Instructions



BR

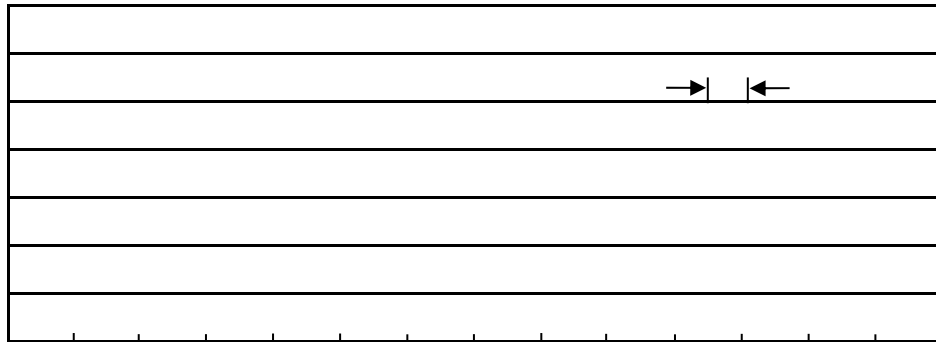
130P016

Note:

BR: Company Code

130P016: 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. |

/ Resistance to Soldering Heat Test Conditions

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

/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension (unit mm ³)		
	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

/ Notices

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