

5 é / Descriptions

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P-Channel Enhancement Mode Field Effect Transistor in a PDFN3~3A-8L Plastic Package.

□ a / Features

$V_{DS} (V) = -16V$ $I_D = -39A (V_{GS} = f 12V)$

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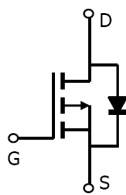
—) í D } ož HF Product.

Đ ÷ / Applications

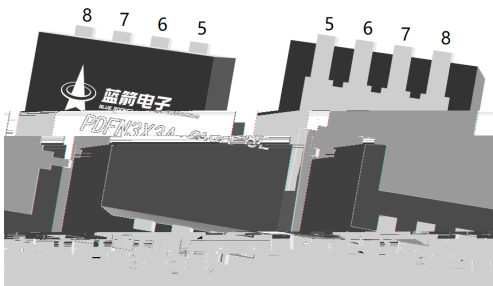
f “ Î A v Ÿ μ ċ ú • ¼ k P ' - y ož

Notebook AC-in load switch, Battery protection charge/discharge.

Ã W] Ô · / Equivalent Circuit



• Ů - æ / Pinning



出脚	定义
Pin1	S
Pin2	S
Pin3	S
Pin4	G
Pin5	D
Pin6	D
Pin7	D
Pin8	D

, M V / Marking

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See Marking Instructions.

1. Absolute Maximum Ratings(Ta=25℃ ;)

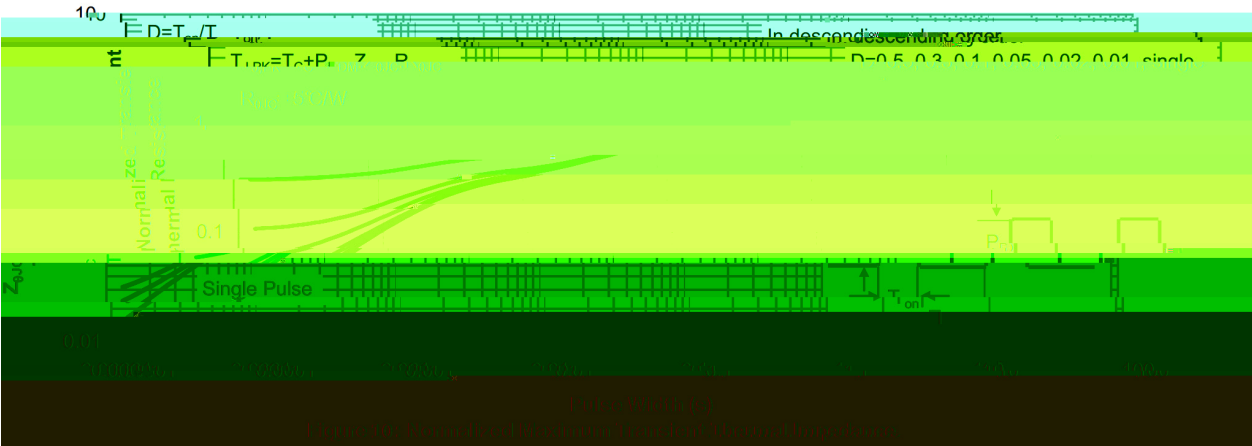
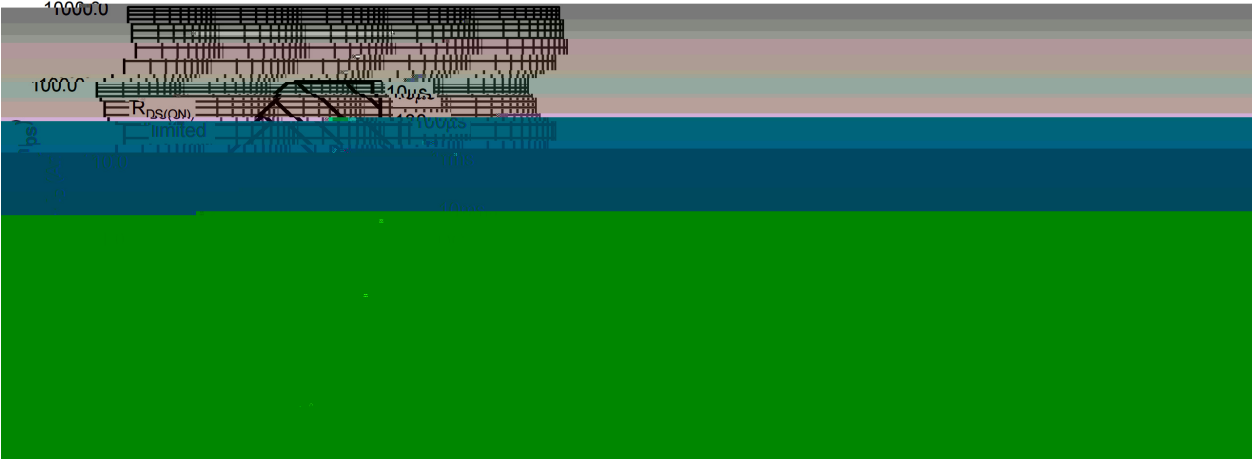
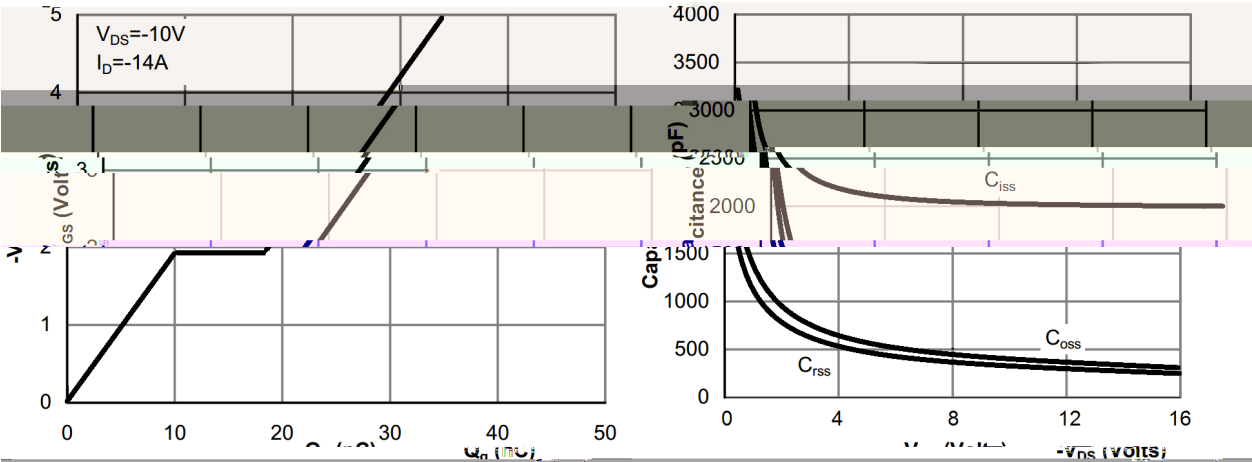
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V _{DS}	-16	V
Drain Current - Continuous	I _D (T _c =25℃)	-39	A
Drain Current – Pulsed	I _{DM}	-104	A
Gate-Source Voltage	V _{GS}	±12	V
Power Dissipation	P _D (T _c =25℃)	25	W
Single Pulse Avalanche Energy(L=0.5mH)	E _{AS}	140	mJ
Avalanche Current	I _{AS}	14.5	A
Junction and Storage Temperature Range	T _j , T _{stg}	-55 to 150	°C
Thermal resistance, junction - ambient	t = 0 ~ 10s	R _{θJA}	27
	Steady-State		60
Thermal resistance, junction - case	Steady-State	R _{θJC}	5

2. Electrical Characteristics(Ta=25℃ ;)

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} =-12.8V, V _{GS} =0V			-1	μA
Gate-Body leakage current	I _{GSS}	V _{DS} =0V, V _{GS} =±12V			±100	nA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} , I _D =-250μA	-0.5	-0.6	-1.0	V
Static Drain-Source On-Resistance	R _{DS(on)}	V _{GS} =-4.5V, I _D =-15A		10	11	mΩ
		V _{GS} =-2.5V, I _D =-10A		13.8	15	
		V _{GS} =-1.8V, I _D =-5A		20		
Diode Forward Voltage	V _{SD}	I _S =-1A, V _{GS} =0V			-1.2	V
Input Capacitance	C _{iss}	V _{DS} =-15V, V _{GS} =0V, f=1.0MHz		2000		pF
Output Capacitance	C _{oss}			280		
Reverse Transfer Capacitance	C _{rss}			260		
Gate resistance	R _g	V _{GS} =0V, V _{DS} =0V, f=1MHz		22		
Total Gate Charge	Q _g	V _{GS} =-4.5V, V _{DS} =-10V, I _D =-14A		32		nC
Gate Source Charge	Q _{gs}			8		
Gate Drain Charge	Q _{gd}			12		

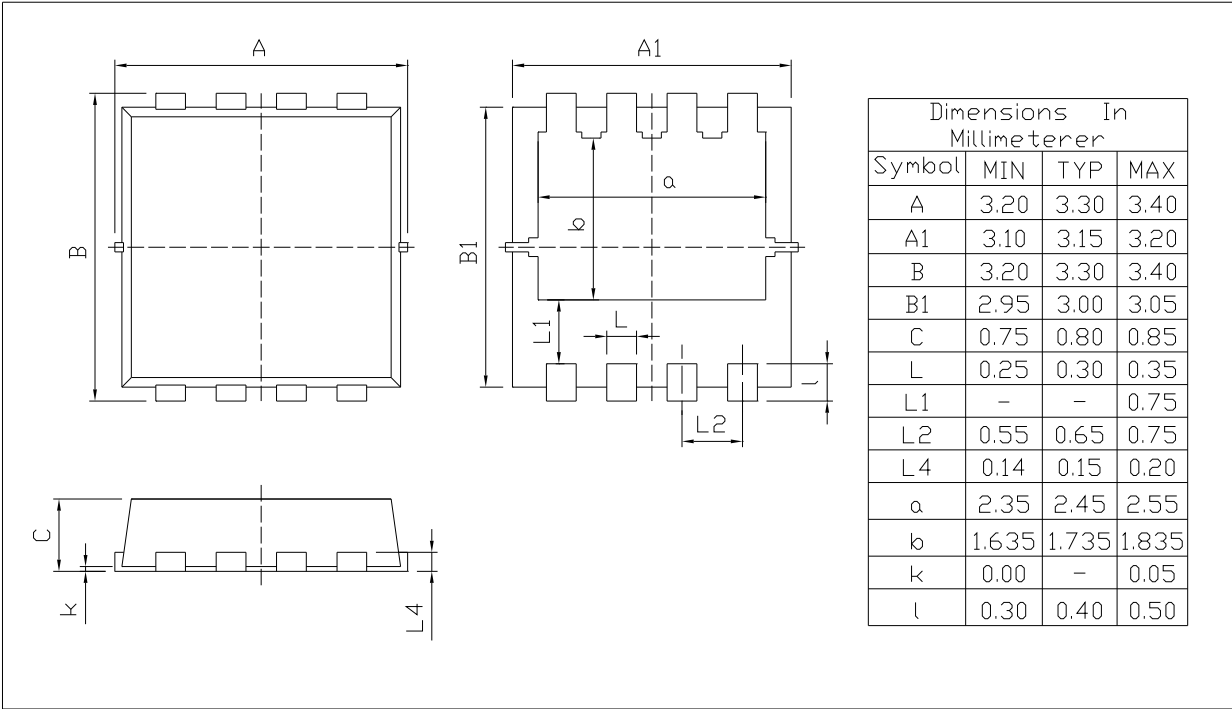
@ f Parameter	... Z Symbol	y i Ú ^ Test Conditions	Â 4 › Min	Á ° › Typ	Â Ý › Max	% y Unit
Turn-On Delay Time	t					

Electrical Characteristic Curve



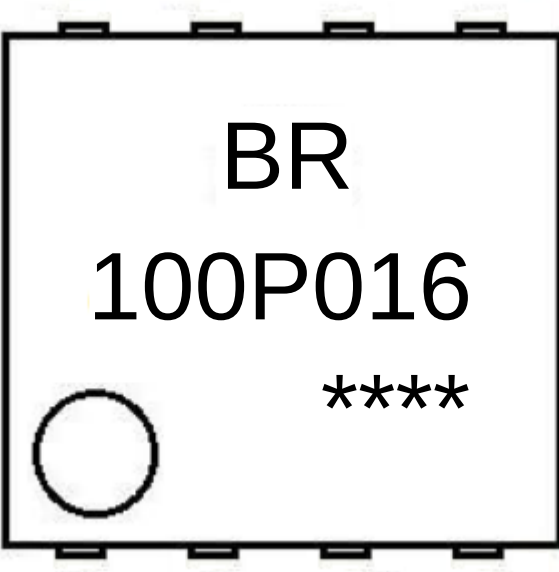
Ø □ =) ☿ / Package Dimensions

PDFN3X3A-8LUnit:mm



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, M y f / Marking Instructions



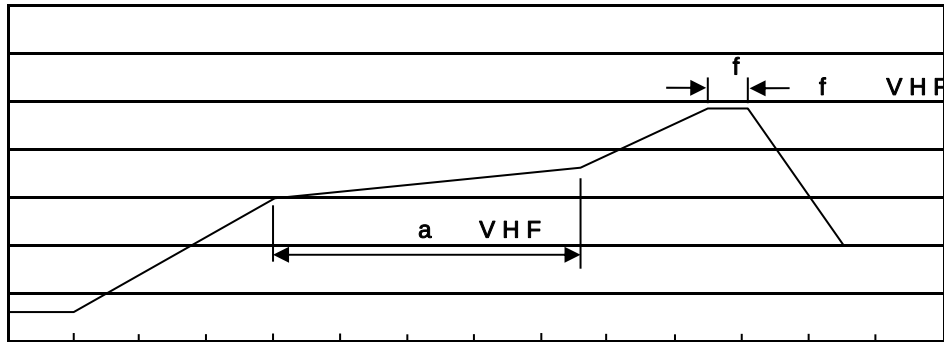
^ ¢ y
BR y , [W A
100P016 y ° Z W A
y ÿ D Z W A k š ÿ D Z J

Note:
BR: Company Code
100P016: Product Type Code
****: Lot No. Code, code change with Lot No



šWD t...•Žč (x/) / :KSVKXGZ[XK 6XULORK LUX /8 8KLRU] 9URJKXOTM 6

7HPSHUDWXUH



7LPH VHF

ačy

10•Ä½“† 150½180 - kž• 60½90sec;

20•Q>“† 245 r5 - kž•4Ö 5 r0.5sec;

30•D Nò iÖ 0,† 2½10 - /sec.

Note:

1.Preheating:150~180 - , Time:60~90sec.

2.Peak Temp.:245 r5 - , Duration:5 r0.5sec.

3. Cooling Speed: 2~10 - /sec.

ÂD /Că p~»] / Resistance to Soldering Heat Test Conditions

“†y 260 r5 -

ž•y 10 r1 sec.

Temp.:260±5

Time:10±1 sec

G P á / Packaging SPEC.

2 & x / REEL

Package Type 7>û~E	Units ;>û H					Dimension ;>û p. (unit /mm³)		
	Units/Reel /-	Reels/Inner Box -- /-	Units/Inner Box /-	Inner Boxes/Outer Box - /1ç	Units/Outer Box /1ç	Reel	Inner Box	Outer Boxç
PDFN3×3A-8L	5,000	2	10,000	6	60,000	13 s ×12	360×360×50	380×335×366

„Đ y f / Notices

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