

5 é / Descriptions

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

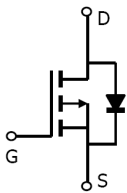
□ a / Features

$V_{DS} (V) = -16V$ $I_D = -39A (V_{GS} = f 12V)$
 $8 * _9 \ 54 \& \quad < \ddagger \ S S : _ V \quad S S$
 $8 * _9 \ 54 \& \quad < \ddagger \ S S : _ V \quad S S$
—) í D } ož HF Product.

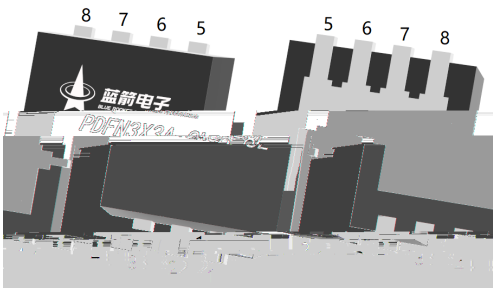
Đ ÷ / Applications

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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

• - ~ a ¢ ož
See Marking Instructions.

绝对最大额定值(Absolute Maximum Ratings)(Ta=25℃ ;)

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	-16	V
Drain Current - Continuous	$I_D(T_c=25^\circ\text{C})$	-39	A
Drain Current – Pulsed	I_{DM}	-104	A
Gate-Source Voltage	V_{GS}	≤ 12	V
Power Dissipation	$P_D(T_c=25^\circ\text{C})$	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	$t \leq 10s$	$R_{\theta JA}$	27
	Steady-State		60
Thermal resistance, junction - case	Steady-State	$R_{\theta JC}$	5

电气特性(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}	$V_{DS}=-12.8V, V_{GS}=0V$			-1	μA
Gate-Body leakage current	I_{GSS}	$V_{DS}=0V, V_{GS}=\pm 12V$			≤ 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=-250\mu A$	-0.5	-0.6	-1.0	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=-4.5V, I_D=-15A$		10	11	m Ω
		$V_{GS}=-2.5V, I_D=-10A$		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

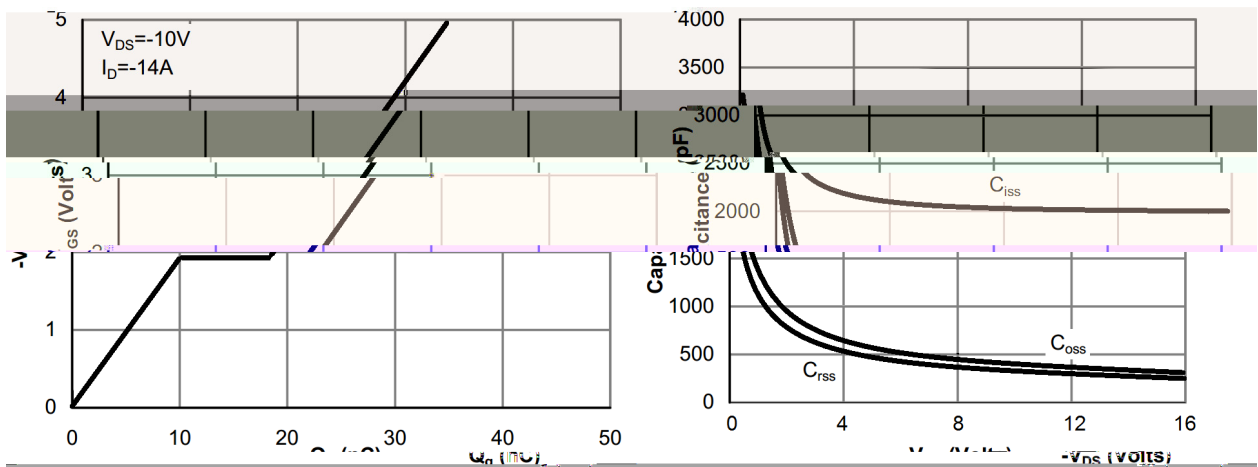
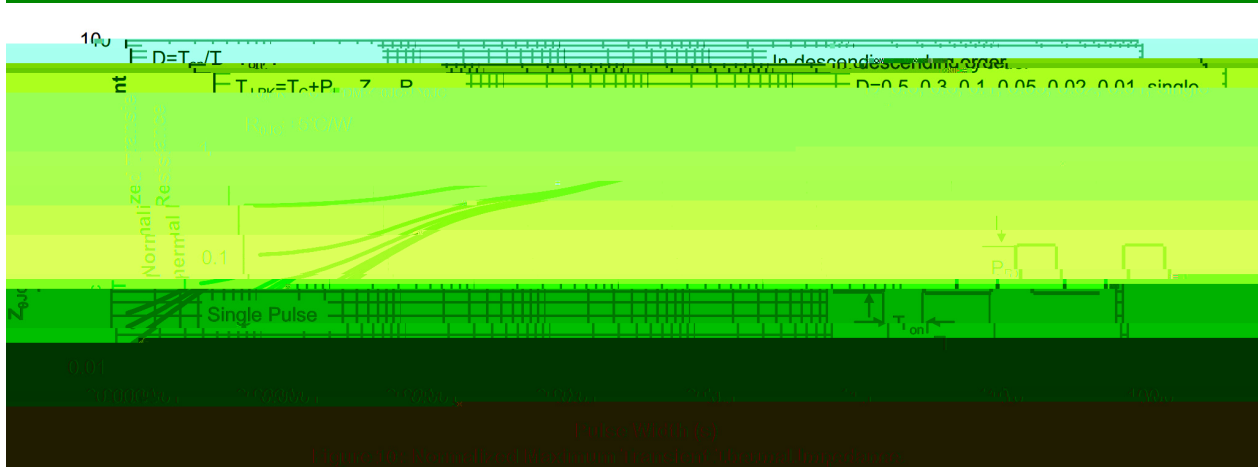
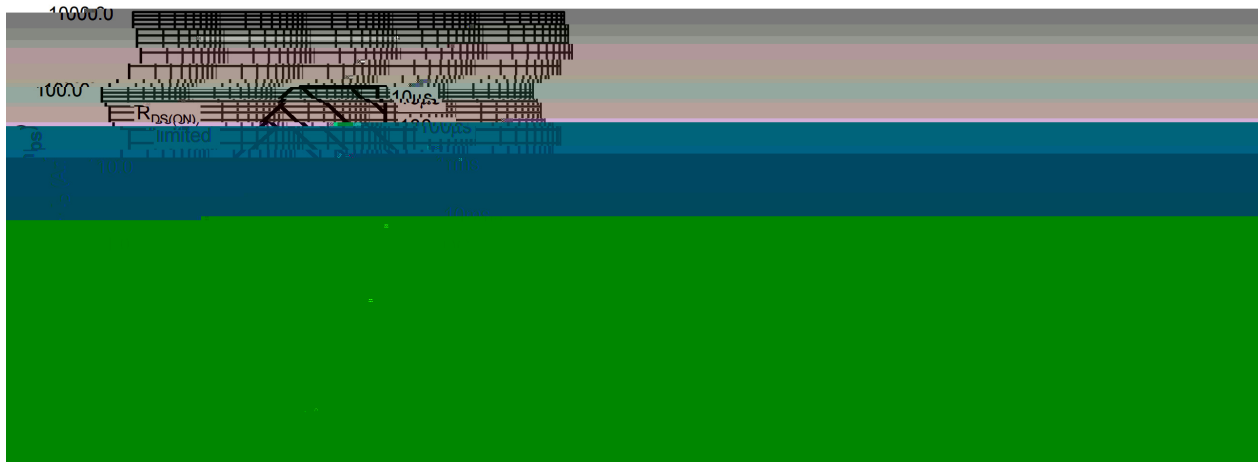
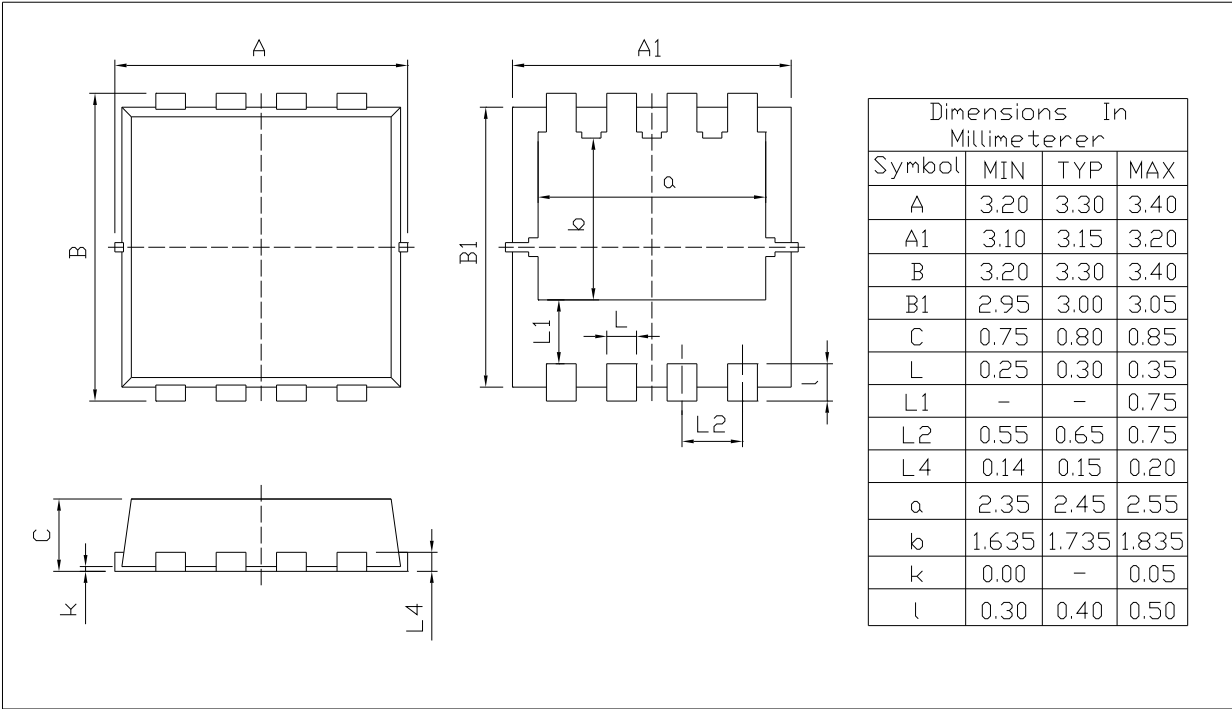


Figure 7: Gate Charge Characteristic Curves Figure 8: Capacitance Characteristics



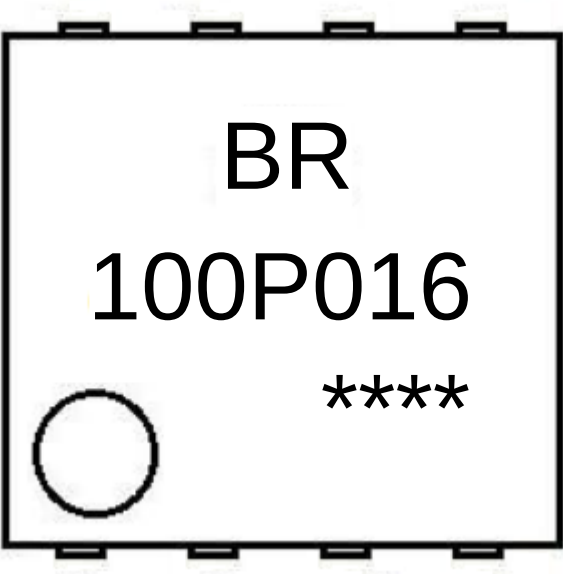
Ø □ =) ☎ / Package Dimensions

PDFN3X3A-8LUnit:mm



Rev.00 202011

, M y f / Marking Instructions



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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

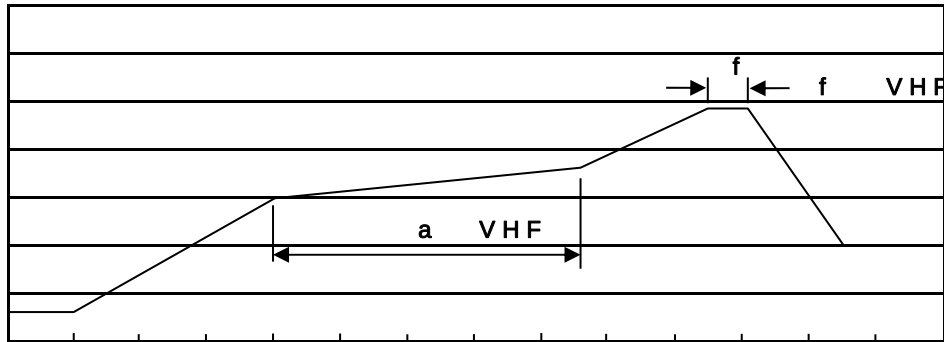
100P016: Product Type Code

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



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7HPSHUDWXUH



7LPH VHF

ačy

10•Ä½“† 150½180 - kž• 60½90sec;

20•Q>“† 245 r5 - kž•4 Ò 5 r0.5sec;

30•D Nò i Ò 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 Åmm³)		
	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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