

5 é / Descriptions

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

α a / Features

$V_{DS} (V) = 60V$

$I_D = 24 A (V_{GS} = f 20V)$

$R_{DS(ON)} @ 10V 0.13mR (Typ. 11.5mR)$

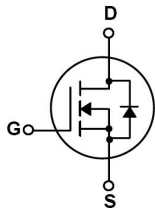
—)í D }ož HF Product.

Đ ÷ / Applications

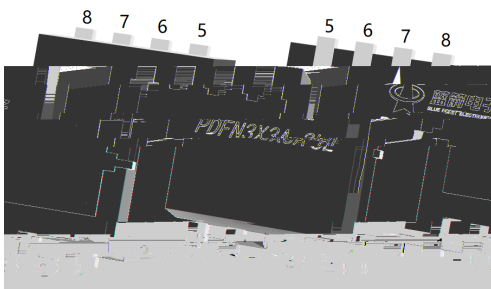
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These devices are well suited for high efficiency switching DC/DC converters and switch mode power supplies.

Ã W ] Ô . / Equivalent Circuit



• Ū - æ / Pinning



出脚	定义
Pin1	S
Pin2	C
Pin3	S
Pin4	S
Pin5	S
Pin6	S
Pin7	S
Pin8	S

, M V / Marking

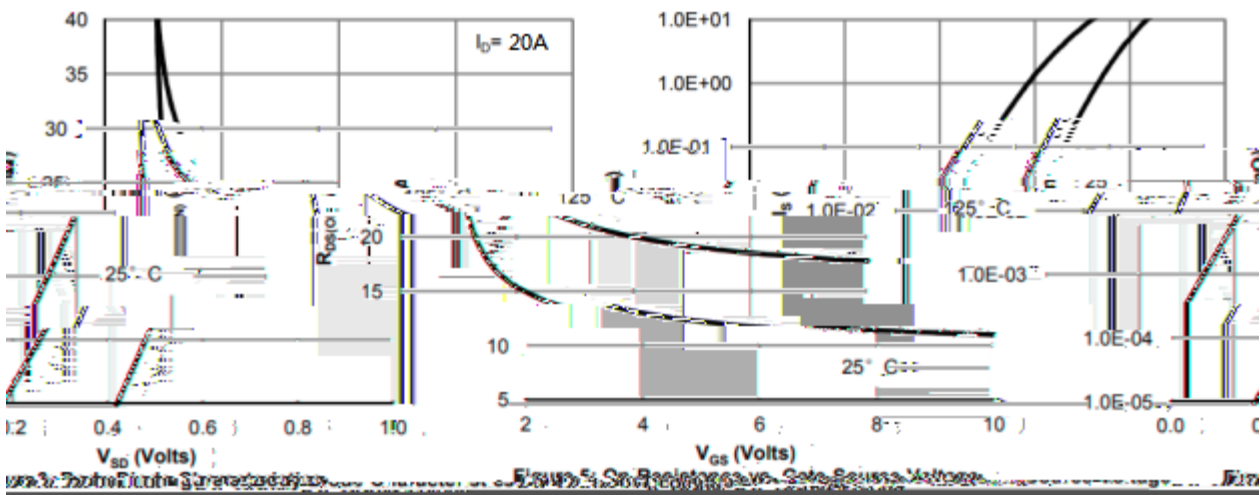
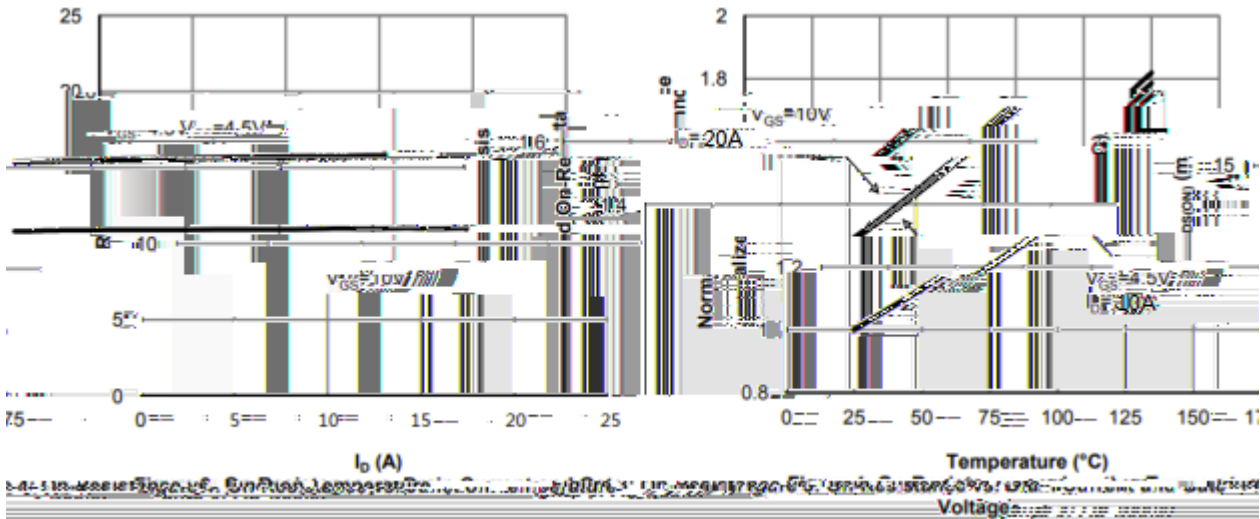
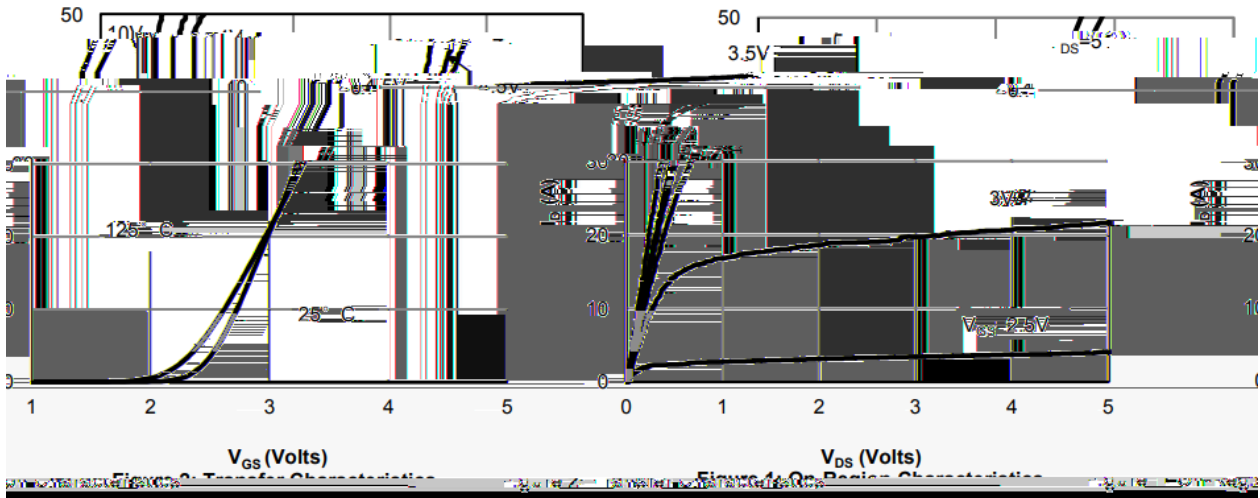
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See Marking Instructions.

@ f Parameter	... Z Symbol	f › Rating	% y Unit
Drain-Source Voltage	V <sub>DSS</sub>	60	V
Drain Current	I <sub>D</sub> (T <sub>C</sub> =25 )	24	A
Drain Current - Pulsed	I <sub>DM</sub>	90	A
Gate-Source Voltage	V <sub>GSS</sub>	±20	V
Single Pulsed Avalanche Energy	E <sub>AS</sub>	70	mJ
Avalanche Current	I <sub>AS</sub>	20	A
Power Dissipation	P <sub>D</sub> (T <sub>C</sub> =25 )	24	W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>stg</sub>	-55 to 150	
Junction-to-Ambient   t 0 10	R <sub>JA</sub>	30	/W

@ f Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	$BV_{DSS}$	$V_{GS}=0V$ $I_D=250 A$	60	64		V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS}=60V$ $V_{GS}=0V$			1	A
Gate-Body Leakage Current Forward	$I_{GSS}$	$V_{GS}=\pm 20V$ $V_{DS}=0V$			$\pm 0.1$	A
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250 A$	1.0	1.6	2.5	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10V$ $I_D=20A$		11.5	13	m
		$V_{GS}=4.5V$ $I_D=10A$		15.5	18	m
Drain-Source Diode Forward Voltage	$V_{SD}$	$V_{GS}=0V$ $I_S=1A$			1.2	V
Input Capacitance	$C_{iss}$	$V_{DS}=25V$ $V_{GS}=0V$ $f=1.0MHz$		1010		pF
Output Capacitance	$C_{oss}$			250		
Reverse Transfer Capacitance	$C_{rss}$			280		

Electrical Characteristic Curve



Electrical Characteristic Curve

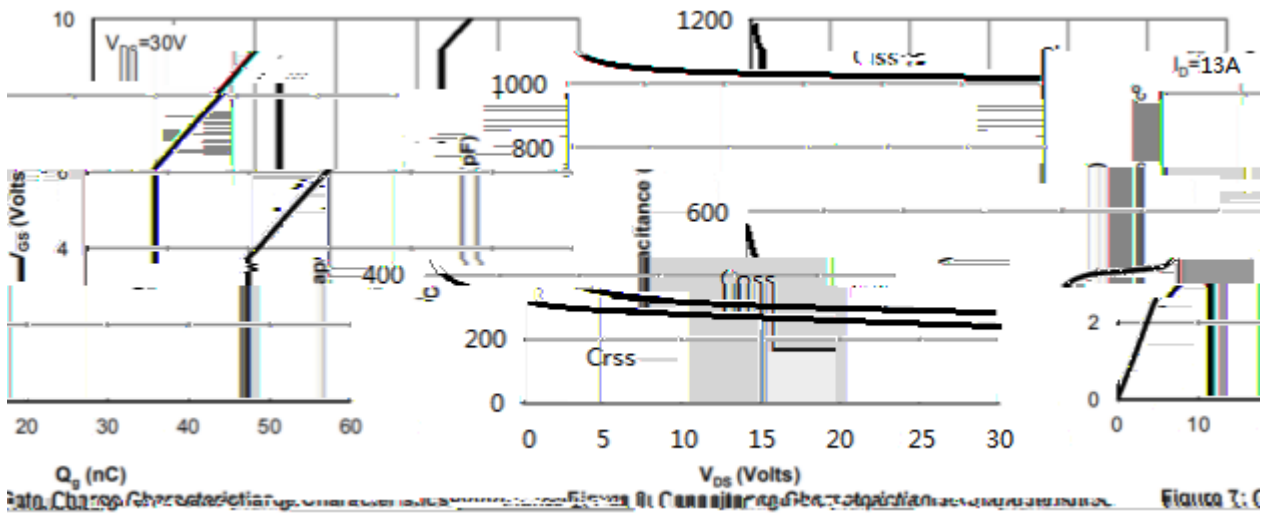
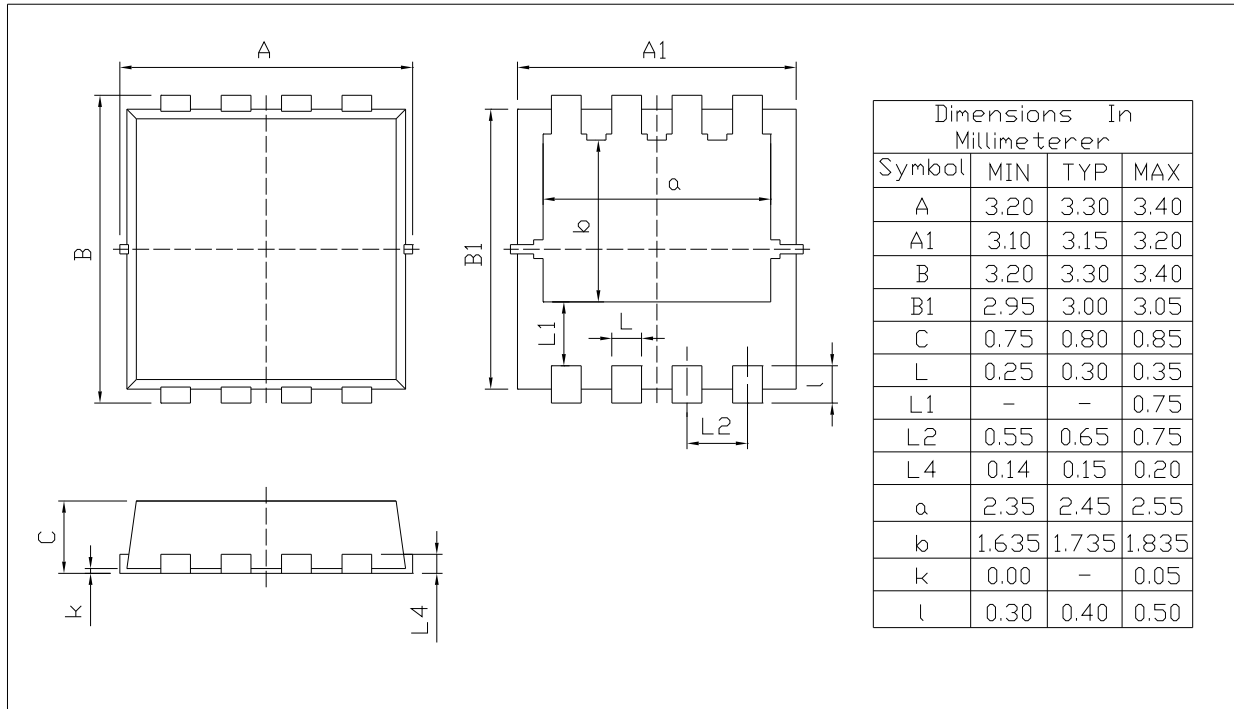


Figure 7: (a) Gate Charge Characteristic, (b) Output Characteristics, (c) Transfer Characteristics

Ø □ = ) φ / Package Dimensions

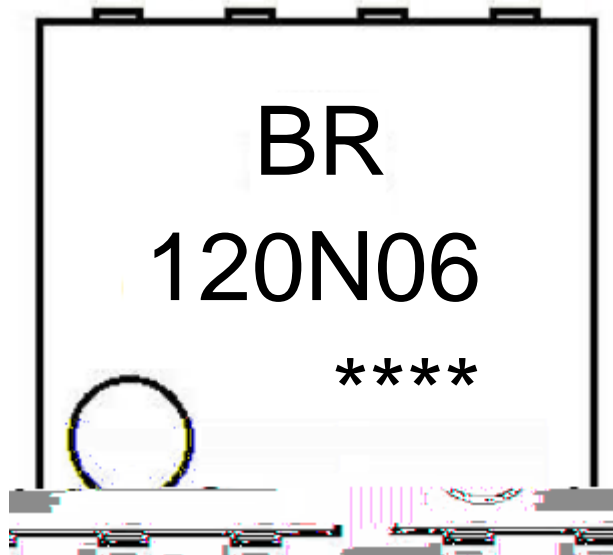
PDFN3X3A-8L

Unit:mm



Rev.00 202011

, M y f / Marking Instructions



<sup>a</sup> φ y

BR y

120N06 y

y

, [ W A

° Z W A

ÿ D Z W A k š ÿ D Z J

Note:

BR: Company Code

120N06: Product Type Code

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

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


<sup>a</sup> ϕ y

- 1o• Ä ½ “ † 150 ½180 - k ž • 60 ½90sec;
- 2o• Q › “ † 245 r5 - k ž • 4 Ò 5 r0.5sec;
- 3o•D N ò i Ò 0 , † 2 ½10 - /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 /Cã 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 y , %ssr 31á " : ! ç 0ç ` % @ A ©