/ Descriptions

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

/ Features

V_{DS}=40V I_D=21A

$R_{DS(ON)}$@10V<20mΩ(Typ.18mR)

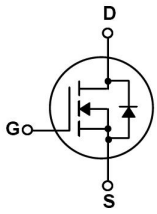
$R_{DS(ON)}$@4.5V<35mΩ(Typ.24mR)

HF Product.

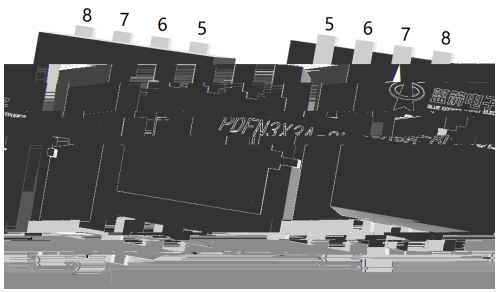
/ Applications

Motor Drive,Power Tools,LED Lighting,Quick Charger.

/ Equivalent Circuit



/ Pinning



出脚	定义
Pin1	S
Pin2	S

/ Marking

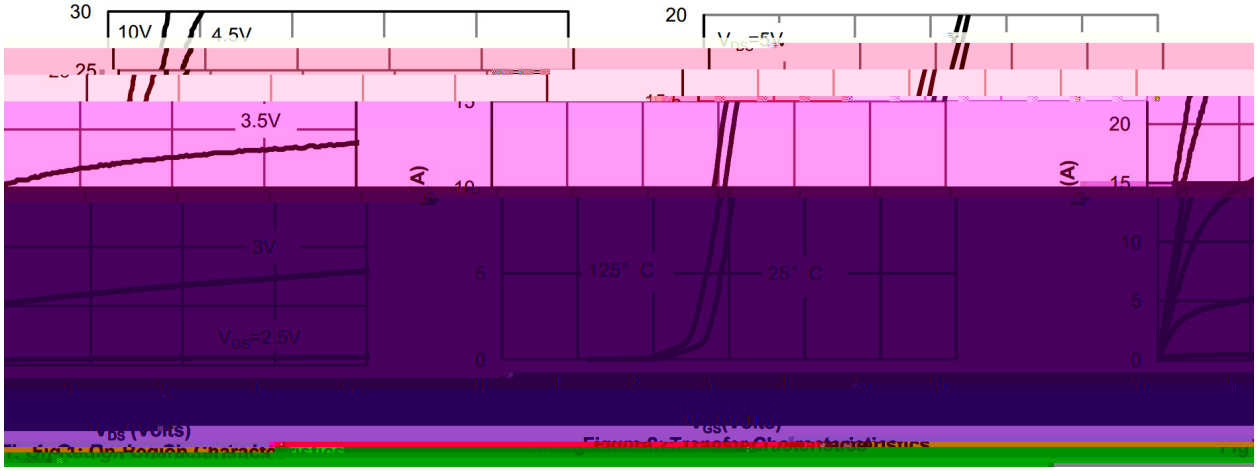
See Marking Instructions.

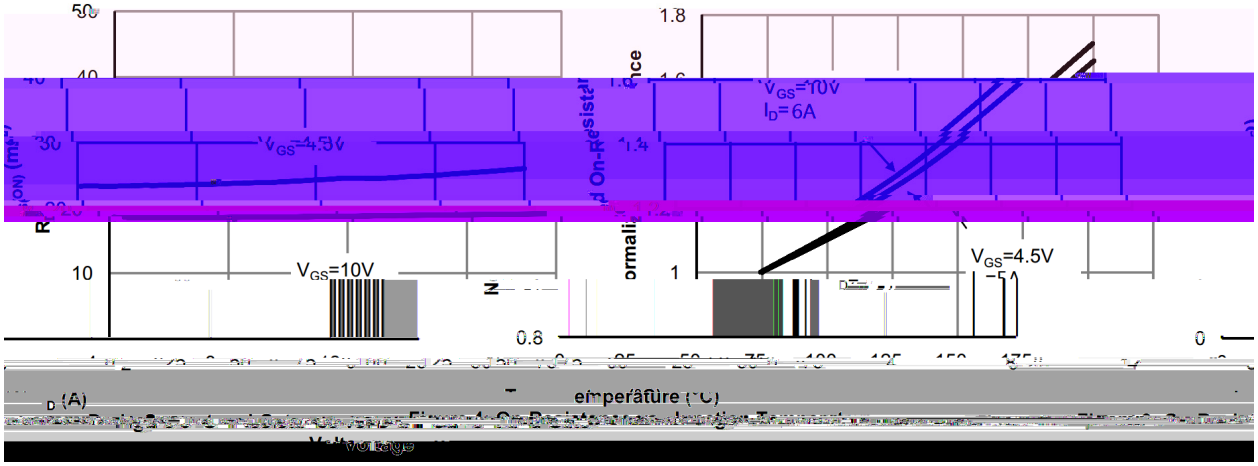
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	40	V
Drain Current	I_D(Tc=25)	21	A
Drain Current - Pulsed	I_{DM}	42	A
Gate-Source Voltage	V_{GS}	±20	V
Power Dissipation	P_D(Tc=25)	15	W
Operating and Storage Temperature Range	T_J,T_{stg}	-55 to 150	
Junction-to-Ambient Steady-State	$R_{\theta JA}$	80	

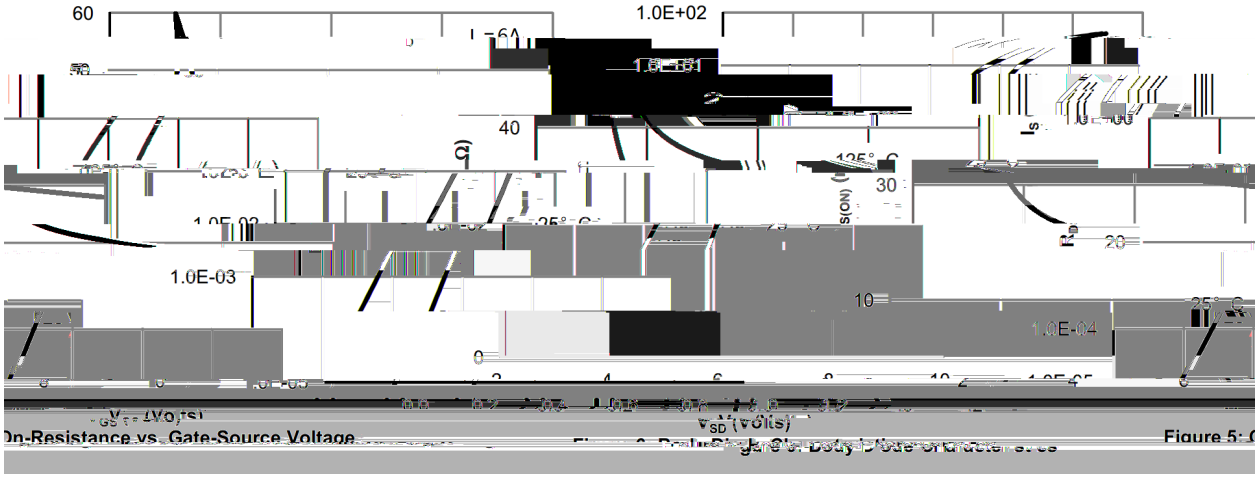
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	V_{DS}=20V V_{GS}=10V R_L=3.3Ω R_{GEN}=3Ω		6.5		ns
Turn-On Rise Time	t_r			3.7		ns
Turn-Off Delay Time	$t_{d(off)}$			18.2		ns
Turn-Off Fall Time	t_f			7.1		ns

/ Electrical Characteristic Curve

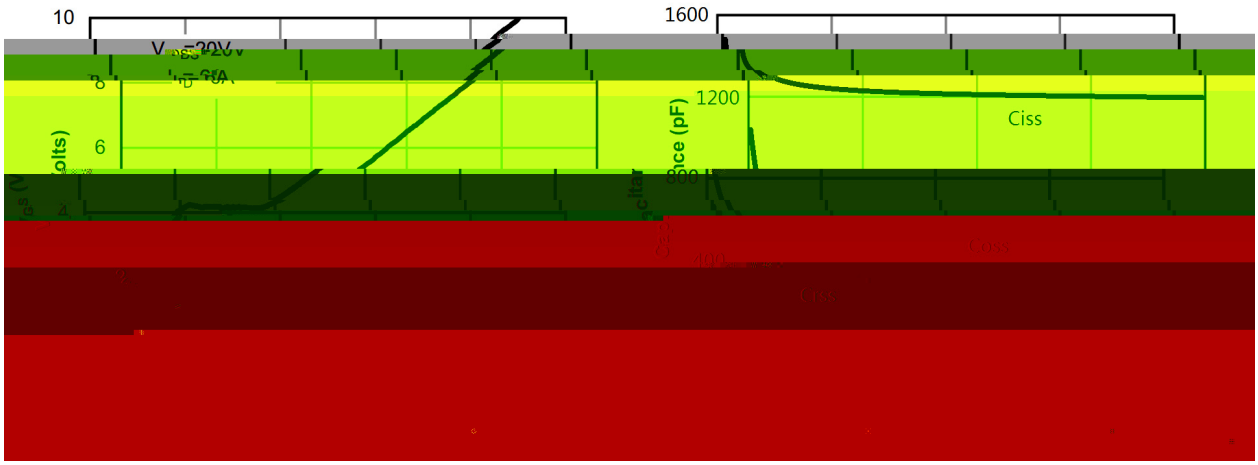


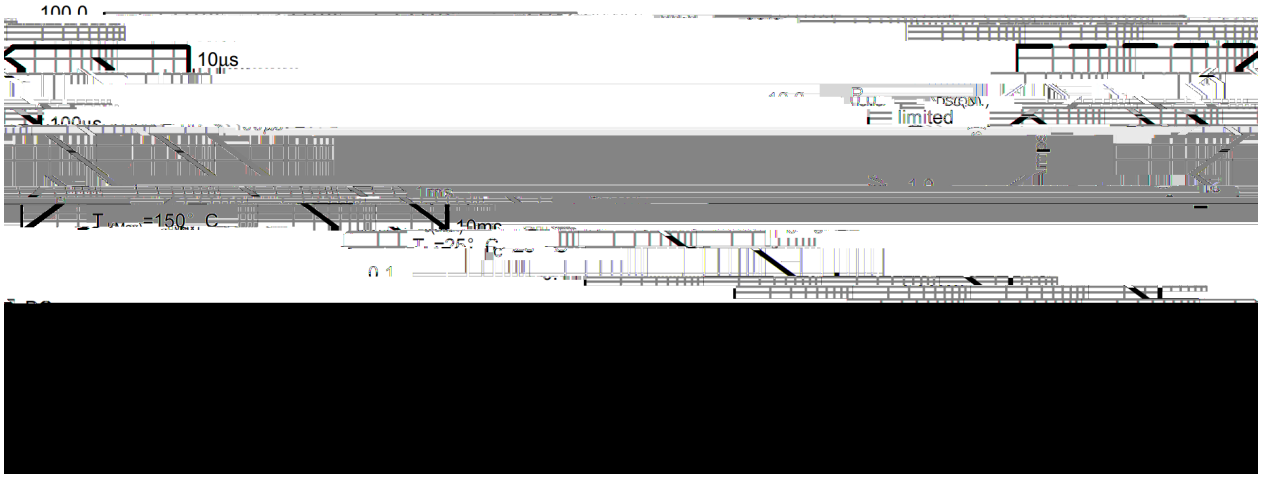


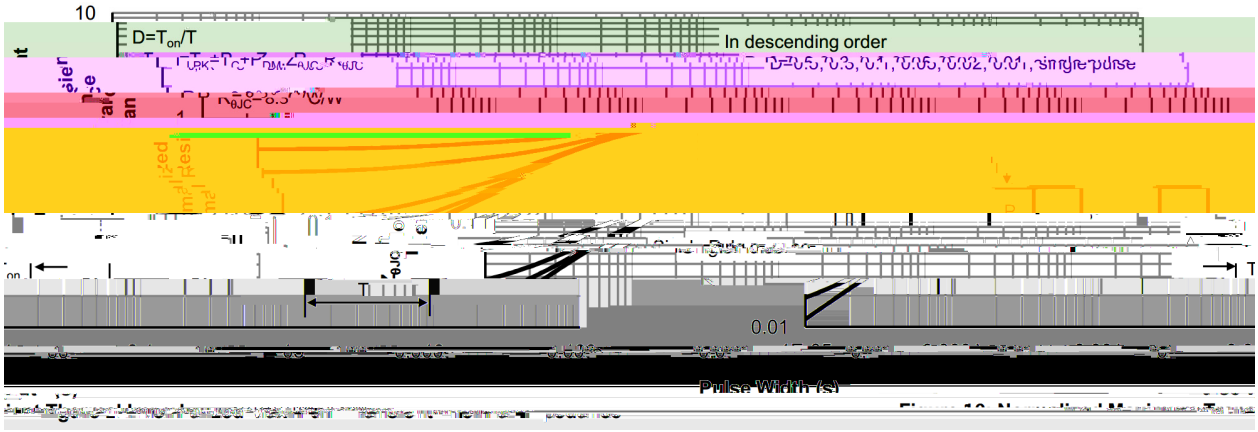


On-Resistance vs. Gate-Source Voltage Figure 5:

N- / N-CHANNEL Electrical Characteristic Curve



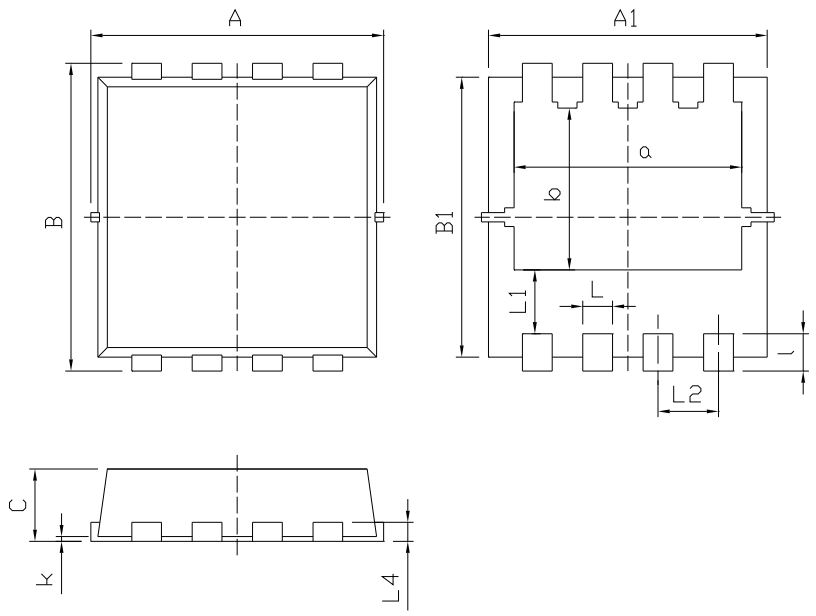




/ Package Dimensions

PDFN3X3A-8L

Unit:mm



Dimensions In Millimeterer			
Symbol	MIN	TYP	MAX
A	3.20	3.30	3.40
A1	3.10	3.15	3.20
B	3.20	3.30	3.40
B1	2.95	3.00	3.05
C	0.75	0.80	0.85
L	0.25	0.30	0.35
L1	-	-	0.75
L2	0.55	0.65	0.75
L4	0.14	0.15	0.20
a	2.35	2.45	2.55
b	1.635	1.735	1.835
k	0.00	-	0.05
l	0.30	0.40	0.50

Rev.00 202011

/ Marking Instructions

BR

200N04

Note:

BR:	Company Code
200N04:	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 mm³)