

BRCS200N04YB

Rev.A May.-2023

/ Descriptions

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

/ Features

$V_{DS}=40V$ $I_D=21A$

$R_{DS(ON)}@10V<20m$ (Typ.18mR)

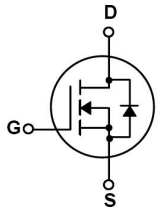
$R_{DS(ON)}@4.5V<35m$ (Typ.24mR)

HF Product.

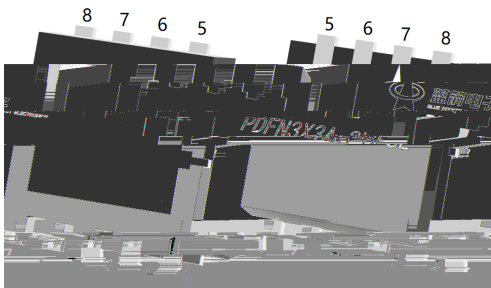
/ Applications

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

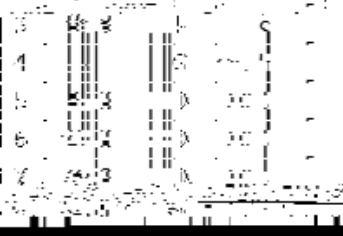
/ Equivalent Circuit



/ Pinning



出脚	定义
Pin1	S
Pin2	G



/ Marking

See Marking Instructions.

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DATA SHEET

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

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{DS}=20V$ $V_{GS}=10V$ $R_L=3.3$ $R_{GEN}=3$		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

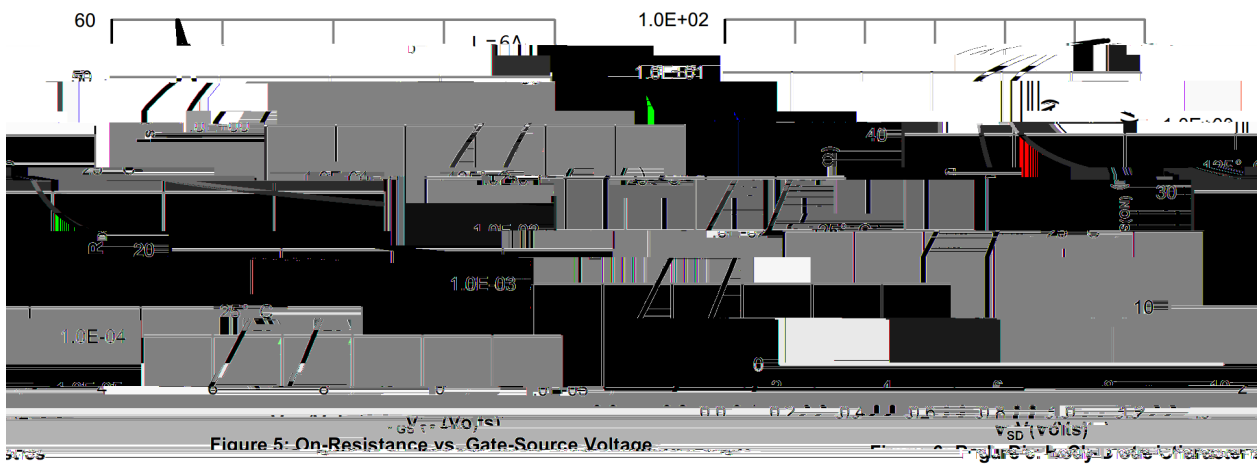
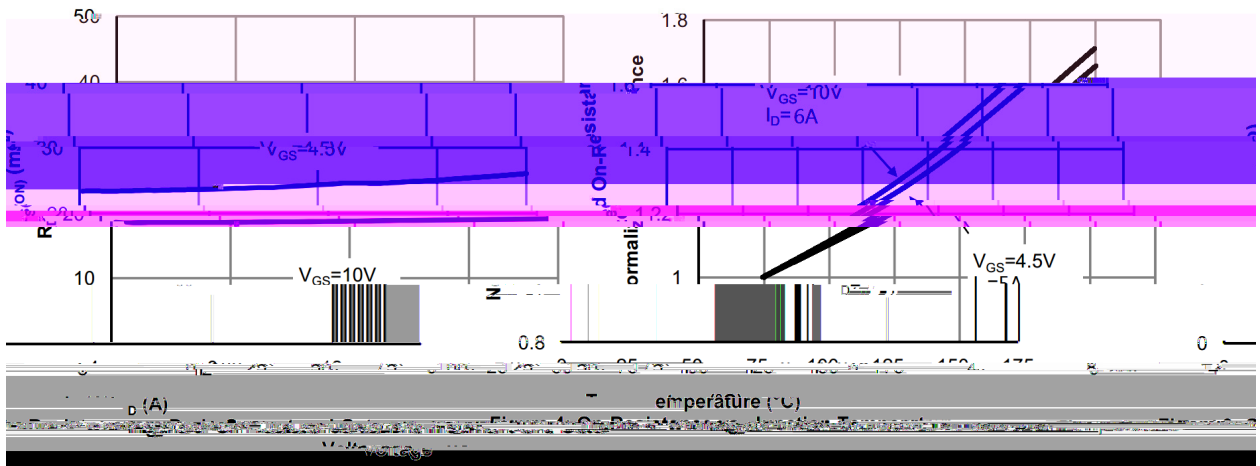
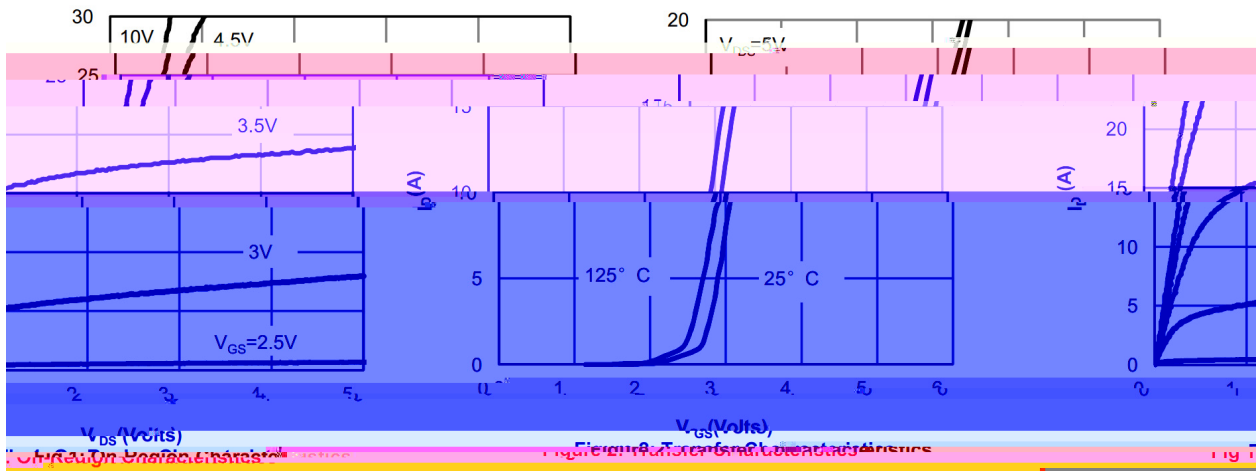
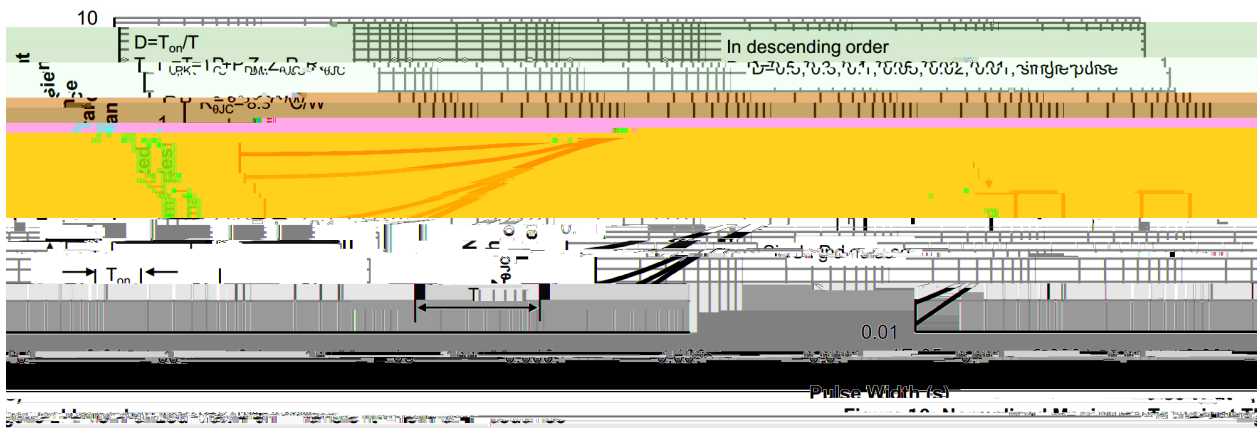
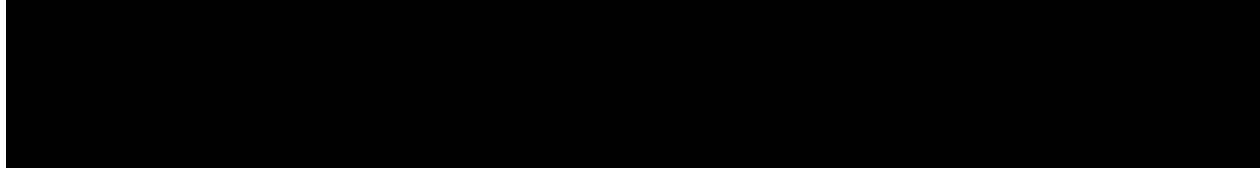
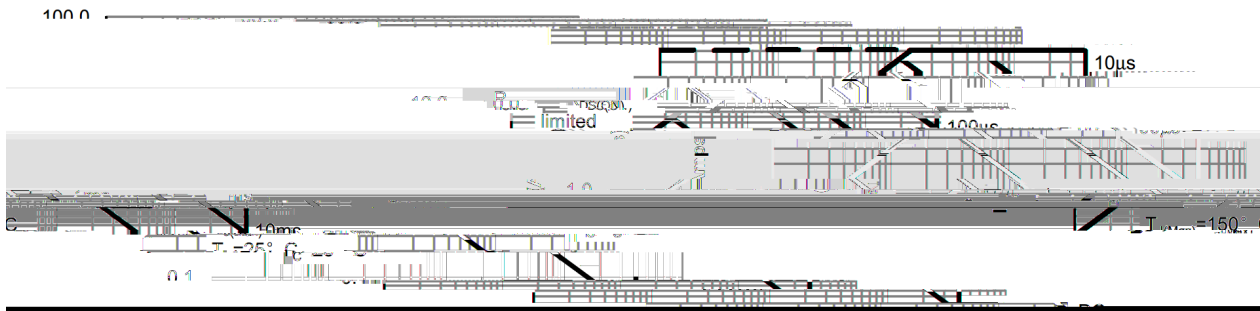
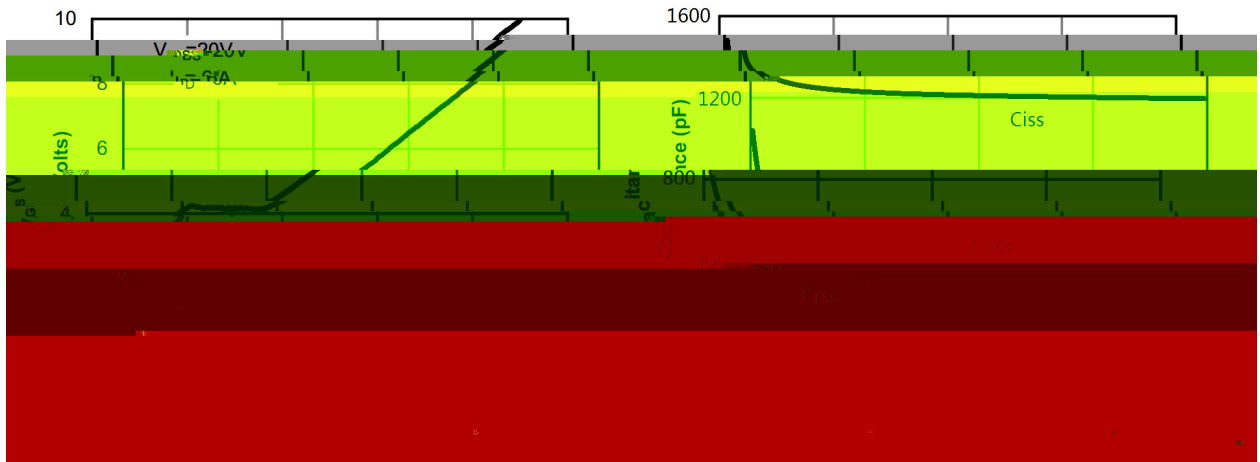


Figure 5: On-Resistance vs. Gate-Source Voltage

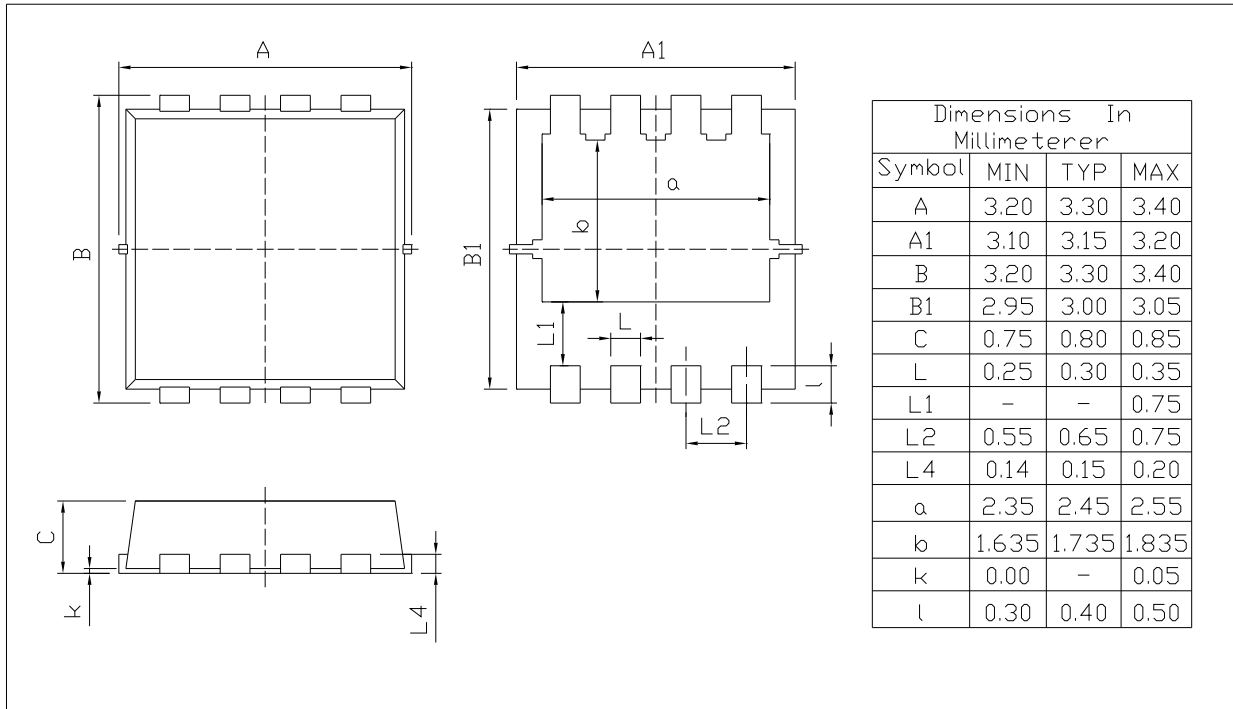
N- / N-CHANNEL Electrical Characteristic Curve



/ Package Dimensions

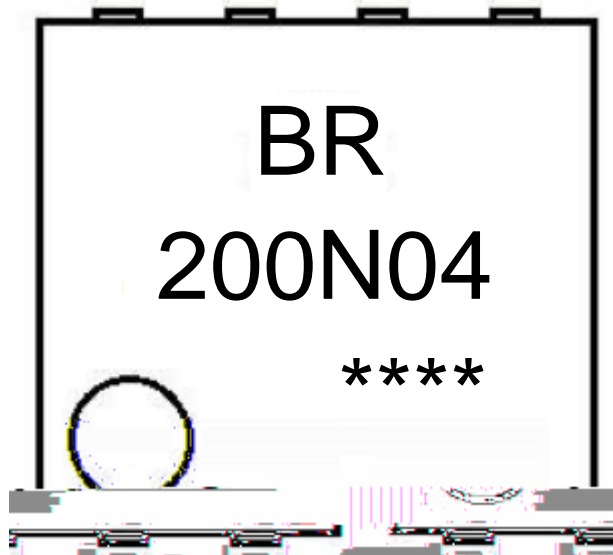
PDFN3X3A-8L

Unit:mm



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
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/ Packaging SPEC.

/ REEL

Package Type	Units	Dimension	(unit mm ³)
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