

# BRCS080N03YB

Rev.B Oct.-2024

## / Descriptions

PDFN 3×3A-8L N MOS

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

## / Features

$V_{DS} (V) = 30V$

$I_D = 30 A (V_{GS} = \pm 20V)$

$R_{DS(ON)} @ 10V \ 9mR (Typ. 8mR)$

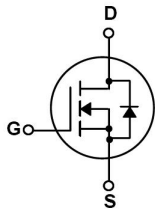
HF Product.

## / Applications

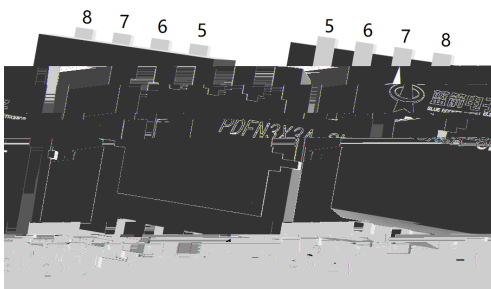
DC/DC

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

## / Equivalent Circuit



## / Pinning



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

## / Marking

See Marking Instructions.

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**DATA SHEET**

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DATA SHEET

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	$BV_{DSS}$	$V_{GS}=0V$ $I_D=250\mu A$	30			V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS}=30V$ $V_{GS}=0V$			1	$\mu A$
Gate-Body Leakage Current Forward	$I_{GSS}$	$V_{GS}=\pm 20V$ $V_{DS}=0V$			$\pm 0.1$	$\mu A$
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250\mu A$	1.0	1.9	2.5	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10V$ $I_D=20A$		8	9	m
		$V_{GS}=4.5V$ $I_D=10A$		12	15	m
Drain-Source Diode Forward Voltage	$V_{SD}$	V				

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/ Electrical Characteristic Curve

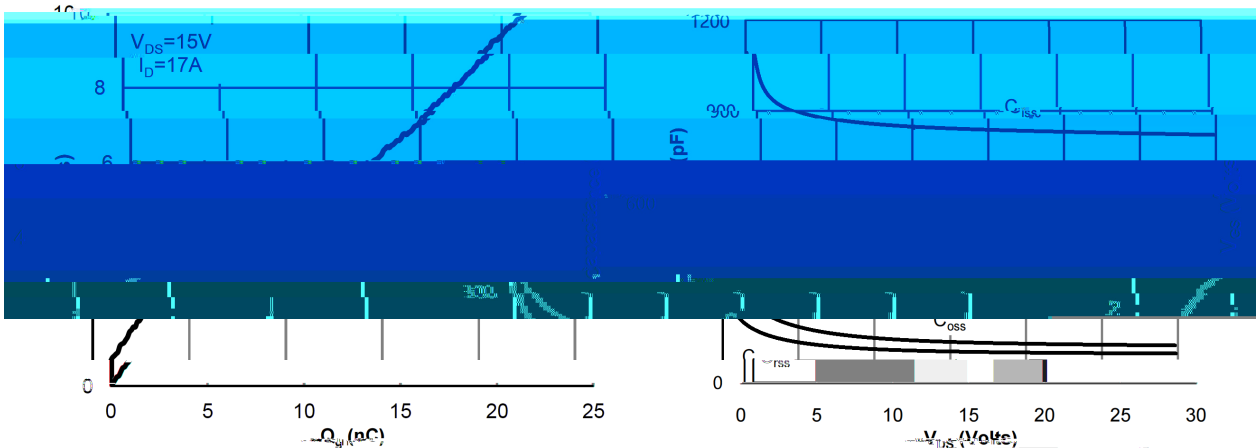
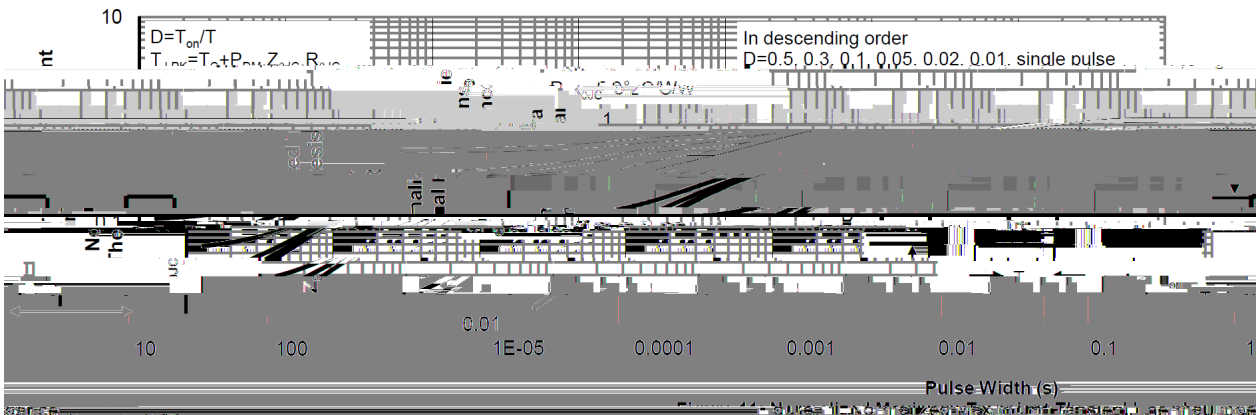
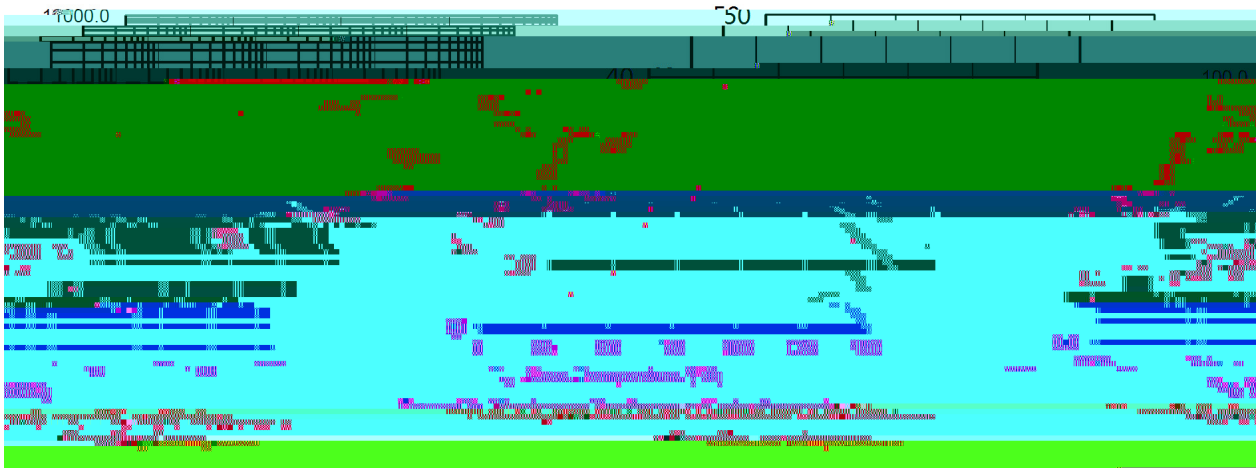


Figure 7: Gate-Charge Characteristics

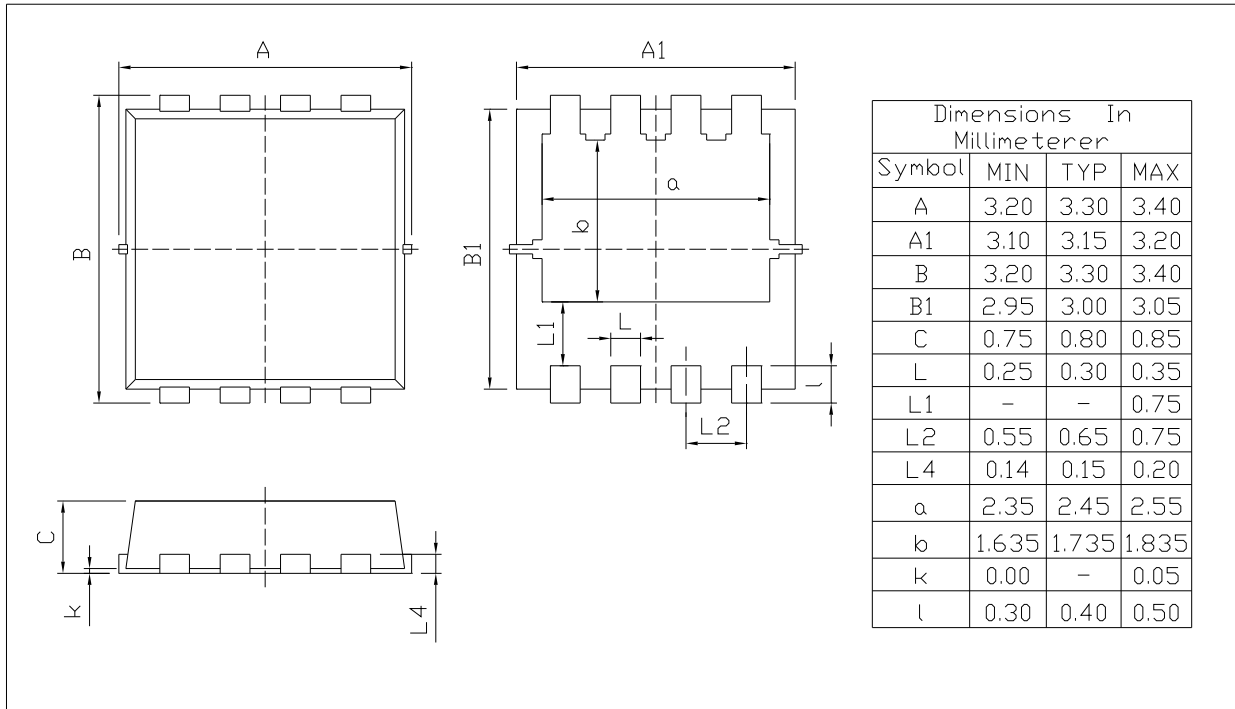
Figure 8: Capacitance Characteristics



**/ Package Dimensions**

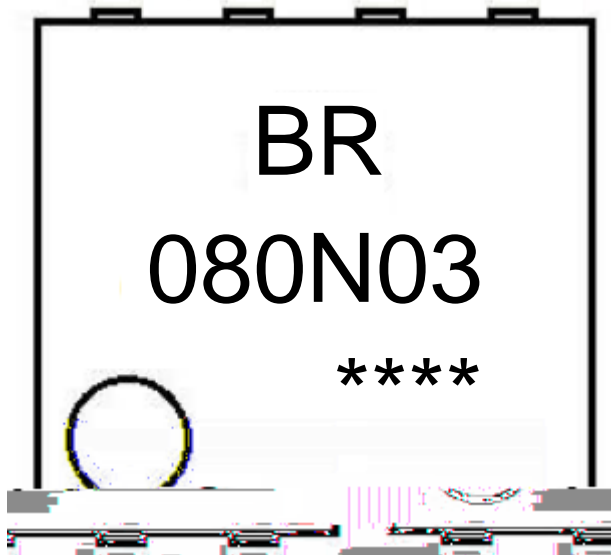
PDFN3X3A-8L

Unit:mm



Rev.00 202011

**/ Marking Instructions**



BR

080N03

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Note:

BR: Company Code

080N03: 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 <sup>3</sup> )
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	%