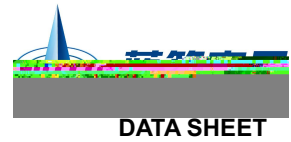




# BRCS010N03SZC

Rev.A May.-2022



## 描述 / Descriptions

PDFN5×6 N  
N-Channel MOSFET in a PDFN5×6 Plastic Package .

## 特 / Features

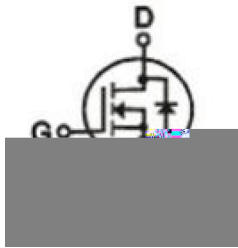
Low  $R_{DS(ON)}$  to minimize conductive loss;low Gate Charge for fast switching;Low Thermal resistance;HF Product.

## 用途 / Applications

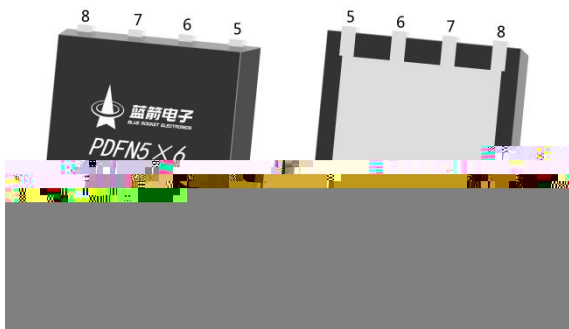
MB/NB/UMPC/VGA Buck -

Battery Management,High Frequency Point-of-Load Synchronous Buck Converter for MB/NB/UMPC/VGA,Networking DC-DC Power System,Load Switch.

## 内部等效路 / Equivalent Circuit



## 引 排列 / Pinning



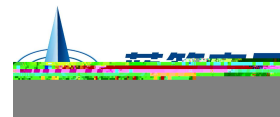
PIN1、2、3: S    PIN4: G    PIN5、6、7、8: D

## 印章代码 / Marking

见印章说明。 See Marking Instructions.

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DATA SHEET

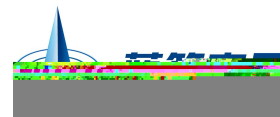
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	$V_{DS}$	30	V
Drain Current - Continuous	$I_D$	370	A
Drain Current – Pulsed	$I_{DM}$	800	A
Gate-Source Voltage	$V_{GS}$	20	V
Power Dissipation	$P_D(T_c=25^\circ\text{C})$	208	W
Single Pulse Avalanche Energy(L=0.1mH)	$E_{AS}$	181	mJ
Avalanche Current(L=0.1mH)	$I_{AS}$	42	A
Junction and Storage Temperature Range	$T_j, T_{stg}$	-55 to 150	$^\circ\text{C}$

Thermal resistance, junctio,

i

j

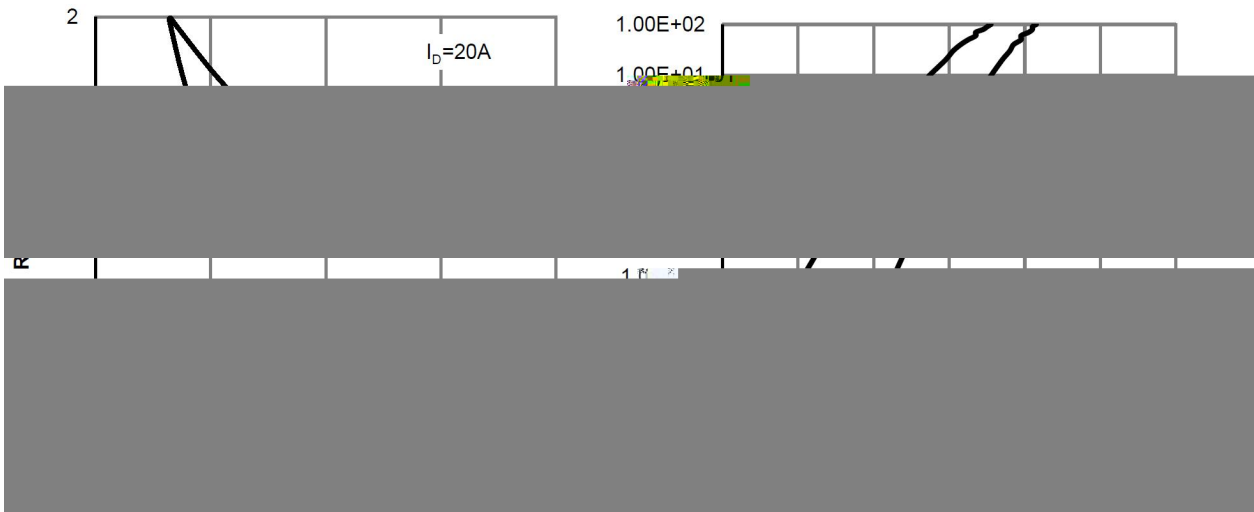
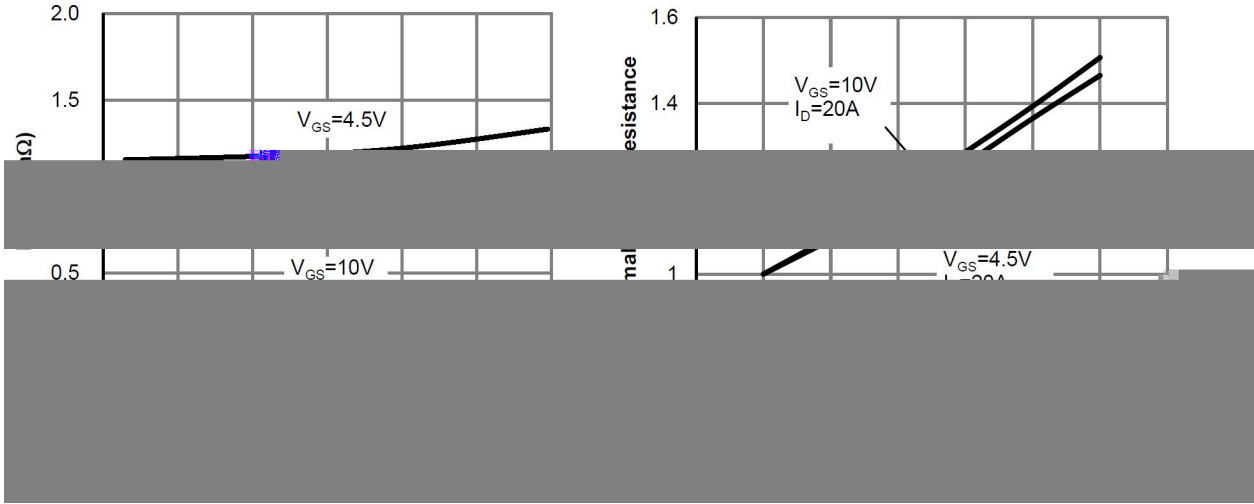
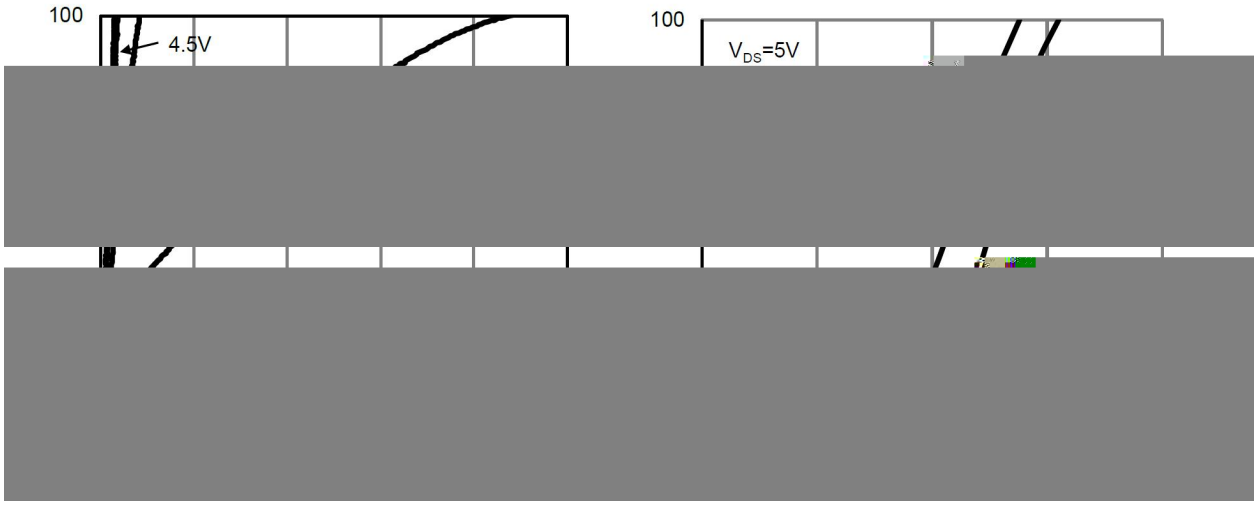
j



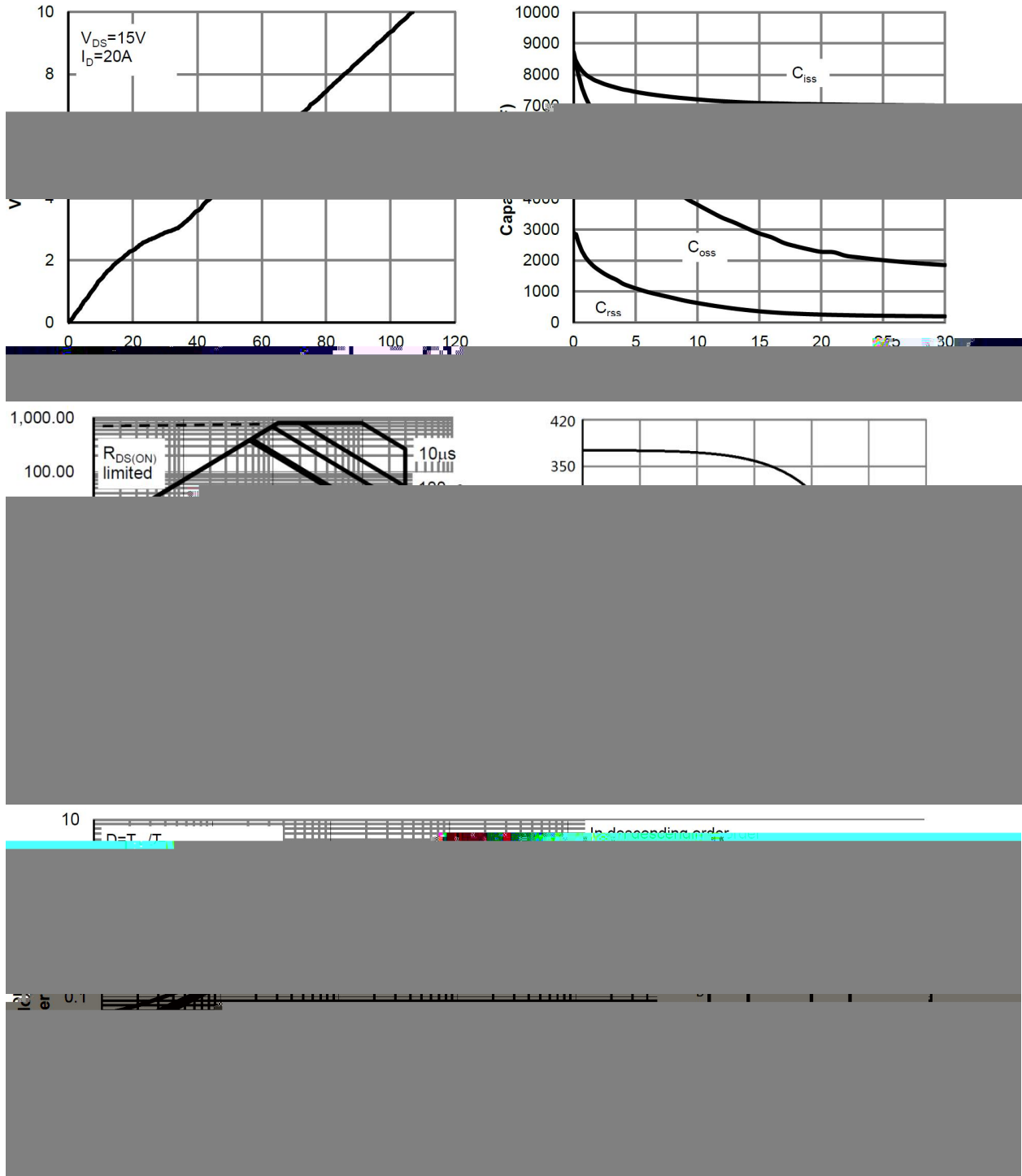
**性 数 / Electrical Characteristics(Ta=25°C)**

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=10V$ $V_{DS}=15V$ $R_L=0.75$ $R_{GEN}=3$		12.3		ns
Turn-On Rise Time	$t_r$			12.8		
Turn-Off Delay Time	$t_{d(off)}$			68.5		
Turn-Off Fall Time	$t_f$			28.8		

**数曲线 / Electrical Characteristic Curve**



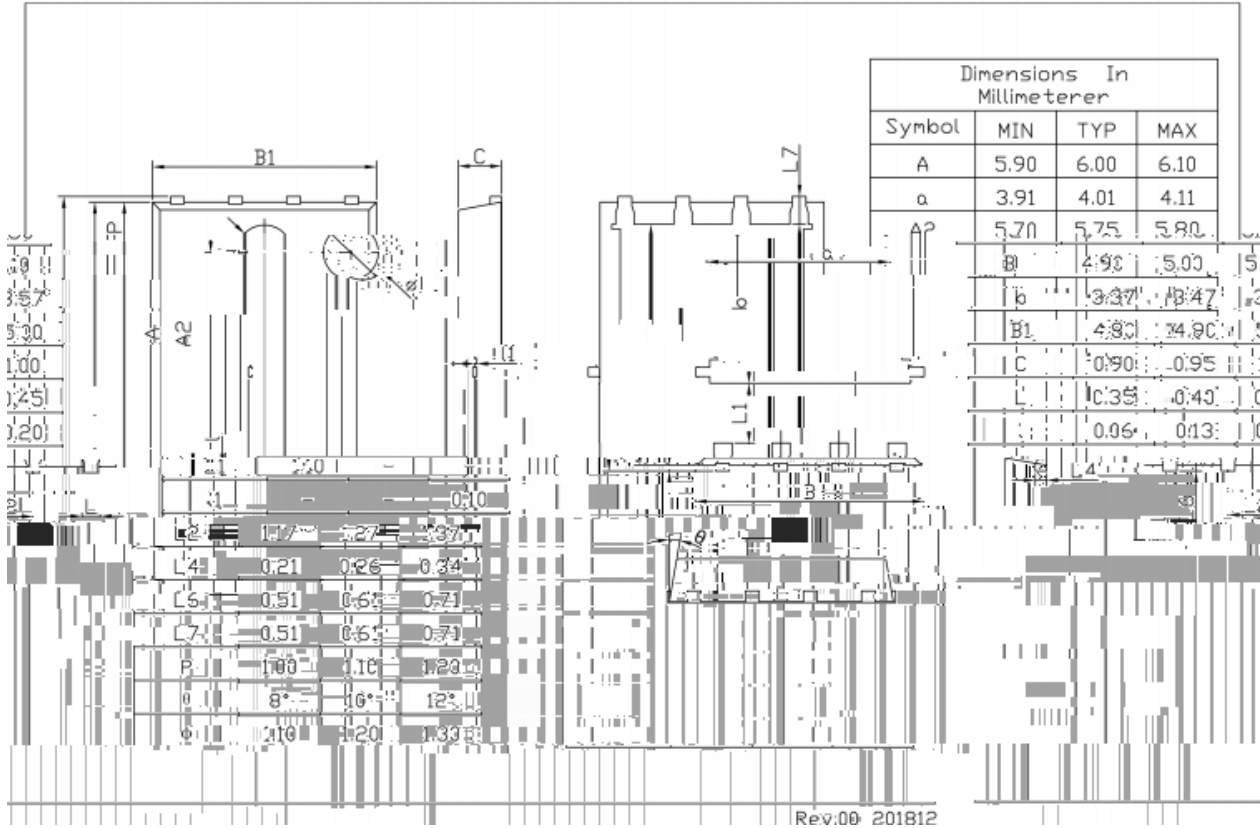
**数曲线 / Electrical Characteristic Curve**

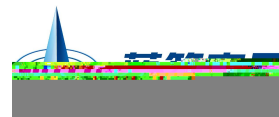


**尺寸 / Package Dimensions**

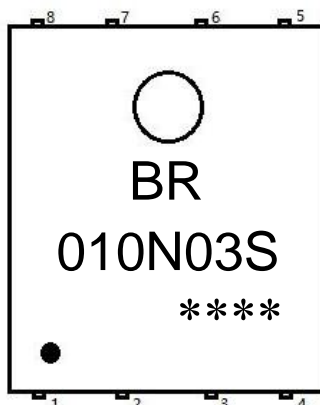
PDFN5 X6

Unit:mm





**印章 / Marking Instructions**



BR

010N03S

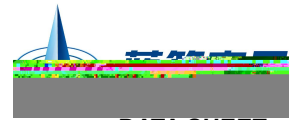
\*\*\*\*

Note

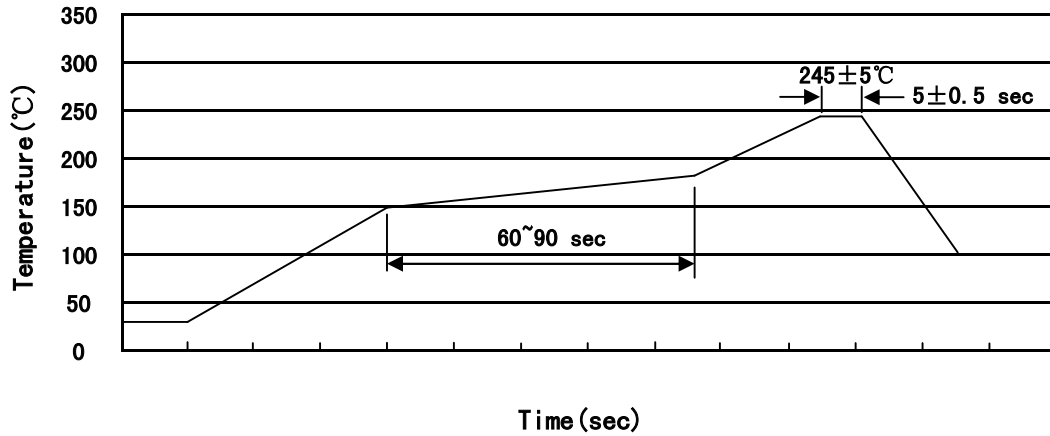
BR                    Company Code

010N03S            Product Type

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



**回 曲线铅无 ) / Temperature Profile for IR Reflow Soldering(Pb-Free)**



Note:

- |   |             |           |  |
|---|-------------|-----------|--|
| 1 | 150 180     | 60 90sec; | 1.Preheating:150~180°C, Time:60~90sec.   |
| 2 | 245±5       | 5±0.5sec; | 2.Peak Temp.:245±5°C, Duration:5±0.5sec. |
| 3 | 2 10°C/sec. |           | 3. Cooling Speed: 2~10°C/sec.            |

**耐 热试验 / Resistance to Soldering Heat Test Conditions**

260±5°C                      10±1 sec.                      Temp.:260±5°C                      Time:10±1 sec

**包 规格 / Packaging SPEC.**

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm <sup>3</sup> )		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
PDFN5 × 6	5000	2	10000	6	60000	13" × 12	360 × 360 × 50	380 × 335 × 366

**濩用 / Notices**