

/ Descriptions

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

/ Features

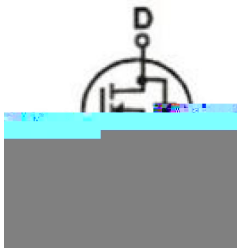
Low $R_{DS(ON)}$ to minimize conductive loss;low Gate Charge for fast switching;Low Thermal resistance, HF Product.

/ Applications

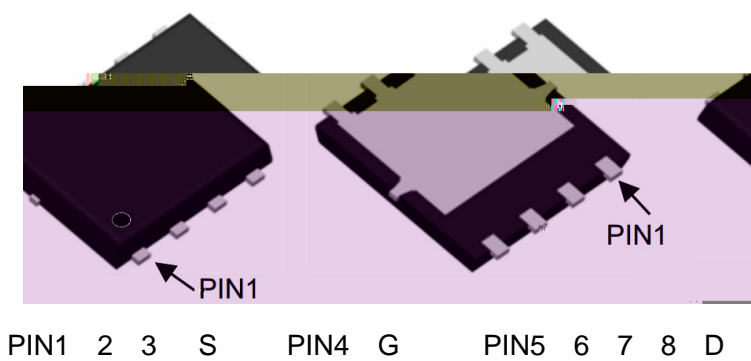
LED

For boost converters and synchronous rectifiers for consumer, telecom, industrial power supplies and LED backlighting.

/ Equivalent Circuit



/ Pinning



Pin	极性
1	S
2	S
3	S
4	G
5	D
6	D
7	D
8	D

/ h_{FE} Classifications & Marking

见印章说明 See Marking Instructions.

BRCS120N10SZC

Rev.A Jun.-2021



DATA SHEET

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DS}	100	V
Drain Current - Continuous		I_D	47	A
Drain Current – Pulsed		I_{DM}	105	A
Gate-Source Voltage		V_{GS}	± 20	V
Power Dissipation		$P_D(T_c=25^\circ\text{C})$	48	W
Single Pulse Avalanche Energy(L=0.5mH)		E_{AS}	78.7	mJ
Avalanche Current(L=0.5mH)		I_{AS}	15	A
Junction and Storage Temperature Range		T_j, T_{stg}	-55 to 150	$^\circ\text{C}$
Thermal resistance, junction - ambient	$t \leq 10\text{s}$	R_{JA}	25	$^\circ\text{C/W}$
	Steady-State		55	
Thermal resistance, junction - case	Steady-State	R_{JC}	2.6	

BRCS120N10SZC

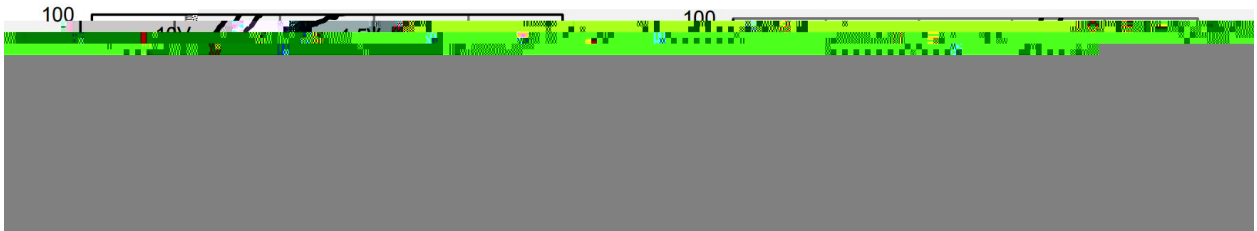
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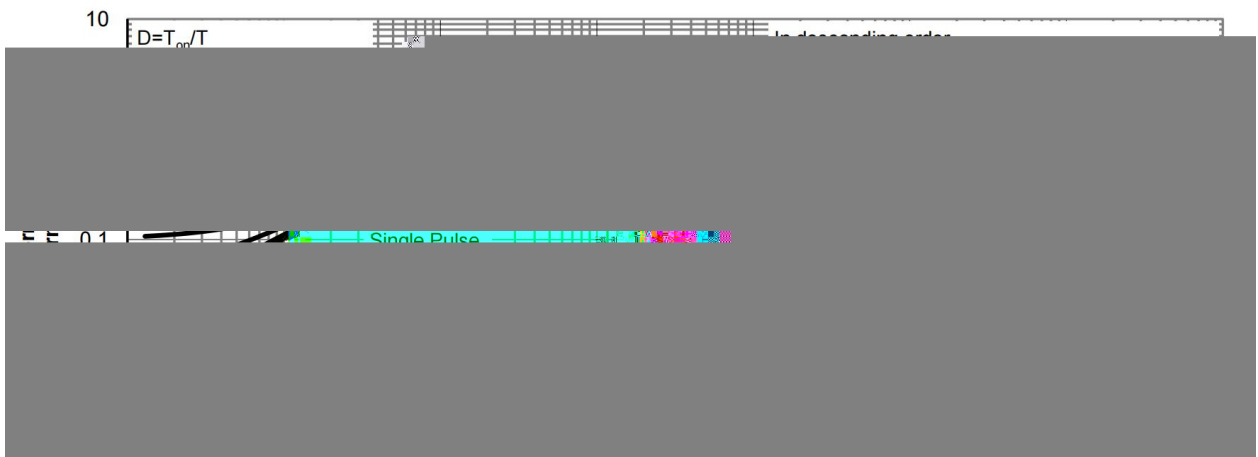
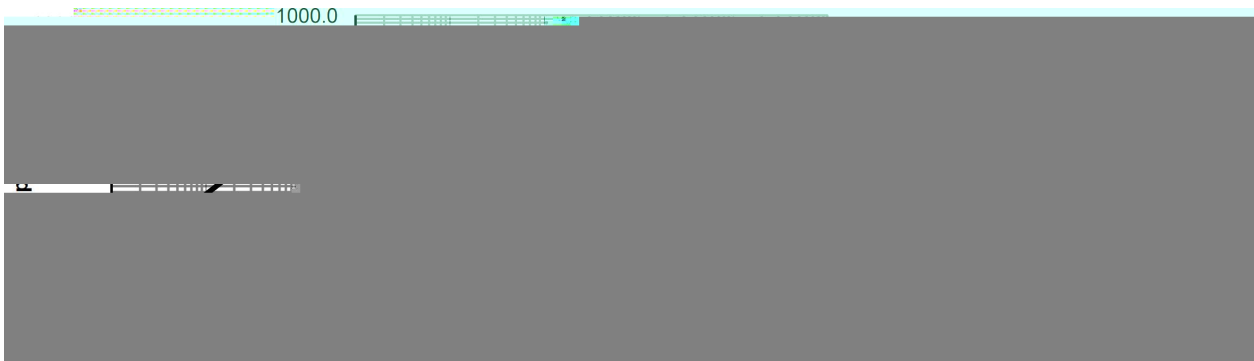
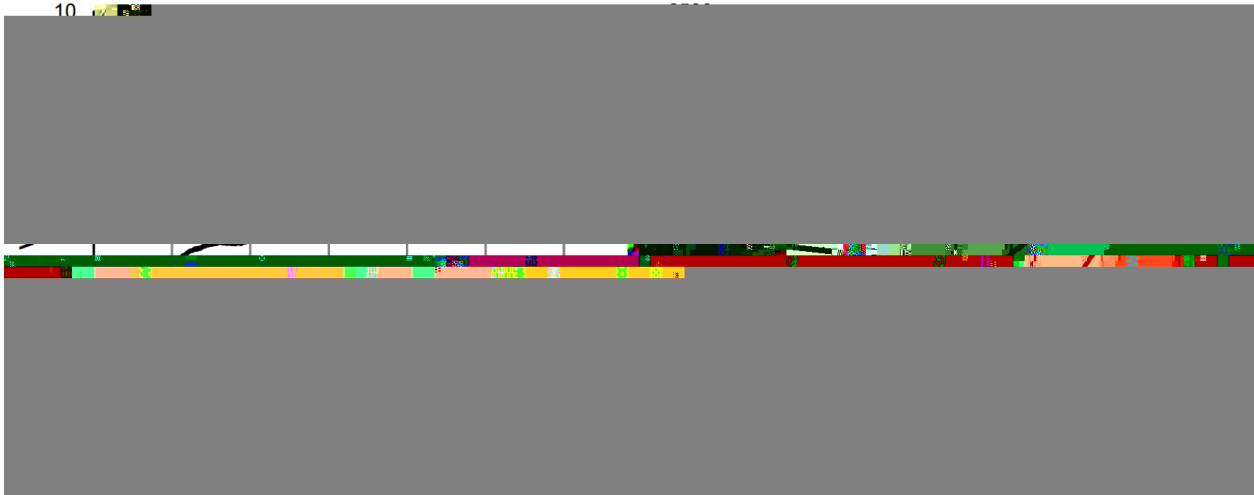
DATA SHEET

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Input Capacitance	C_{iss}	$V_{DS}=25V$ $V_{GS}=0V$				

/ Electrical Characteristic Curve



/ Electrical Characteristic Curve

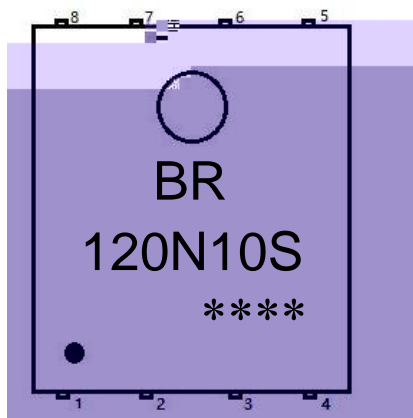


/ Package Dimensions





/ Marking Instructions



BR

120N10S

Note

BR Company Code

120N10S Product Type.



() / 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. |

/ Resistance to Soldering Heat Test Conditions

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

/ REEL

Package Type	Units 包装数量	Dimension 包装尺寸 (unit: mm ³)
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