

BRCs060N03ZC

Rev.B May.-2021



DATA SHEET

/ Descriptions

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

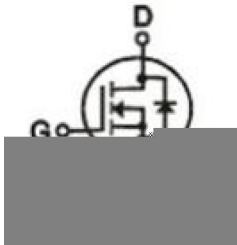
/ Features

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

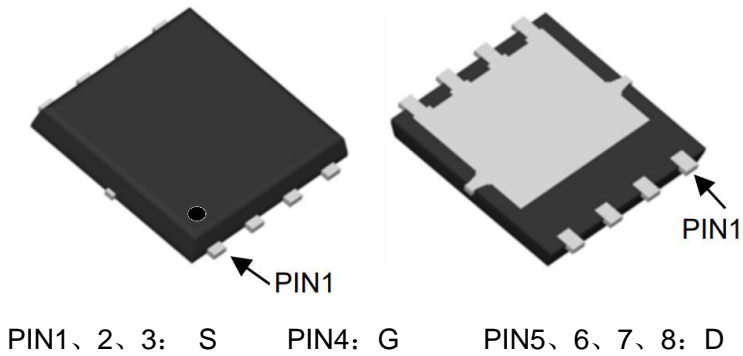
/ Applications

Battery Management

/ 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

。 See Marking Instructions.

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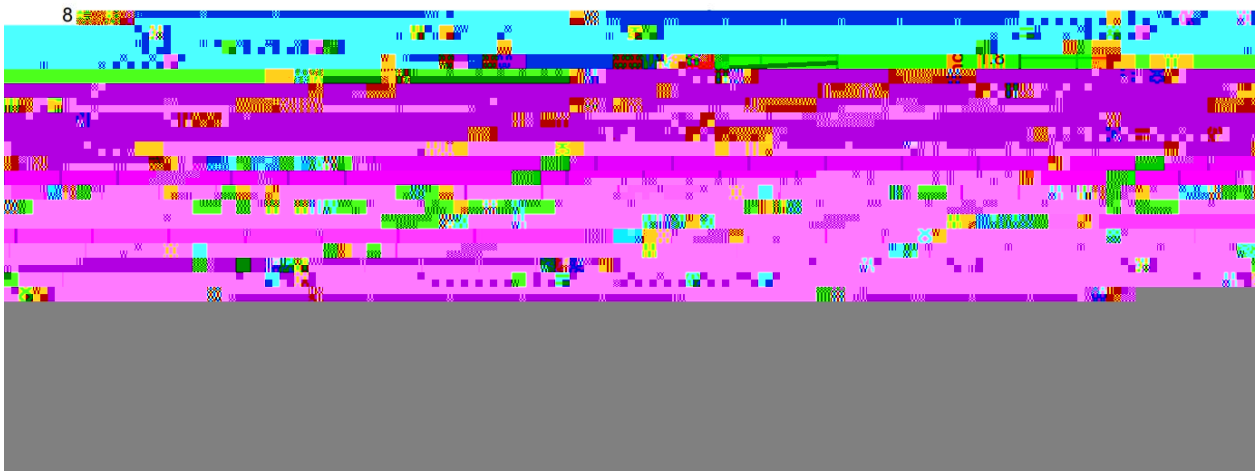
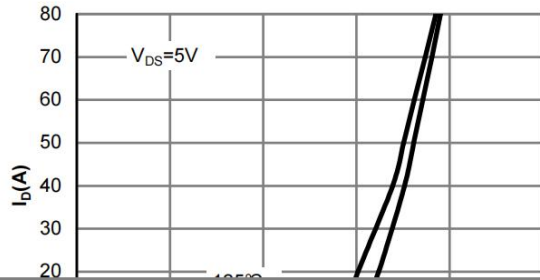
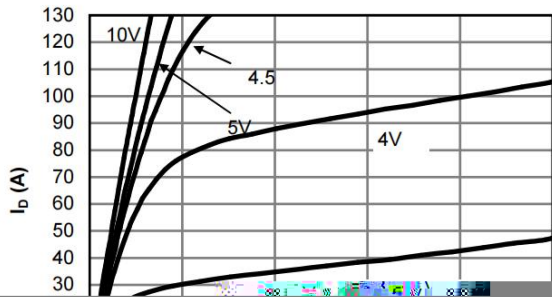
DATA SHEET

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DS}	30	V
Drain Current - Continuous		I_D	45	A
Drain Current – Pulsed		I_{DM}	135	A
Gate-Source Voltage		V_{GS}	± 20	V
Power Dissipation		$P_D(T_c=25^\circ C)$	28	W
Single Pulse Avalanche Energy(L=0.5mH)		E_{AS}	211	mJ
Avalanche Current(L=0.5mH)		I_{AS}	23	A
Junction and Storage Temperature Range		T_j, T_{stg}	-55 to 150	$^\circ C$
Thermal resistance, junction - ambient 12	$t \leq 10s$	R_{JA}	36	$^\circ C/W$
	Steady-State		64.8	
Thermal resistance, junction - case	Steady-State	R_{JC}	4.5V R	

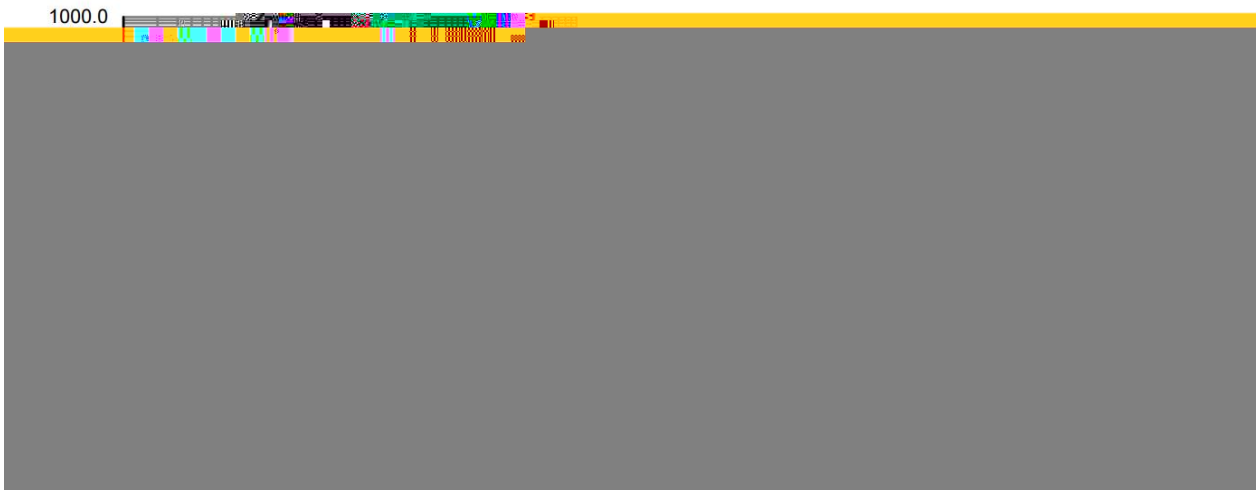
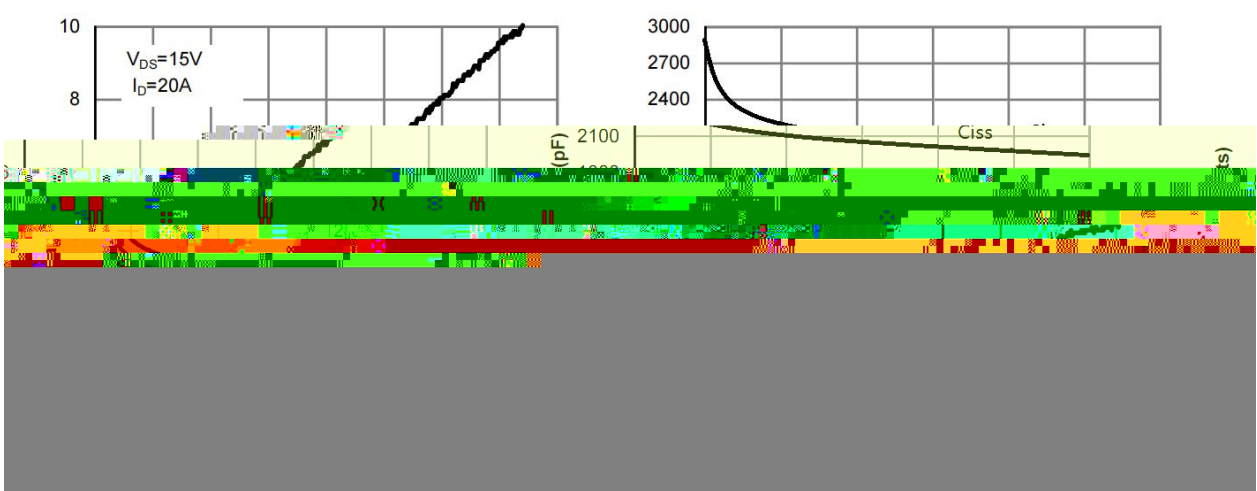
**/ Electrical Characteristics(Ta=25)**

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{D(on)}$	$V_{GS}=10V, V_{DS}=15V,$ $R_L=0.75, R_{GEN}=3$		8.1		ns
Turn-On Rise Time	t_r			8.6		
Turn-Off Delay Time	$t_{D(off)}$			29		
Turn-Off Fall Time	t_f			8		

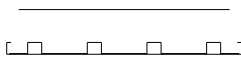
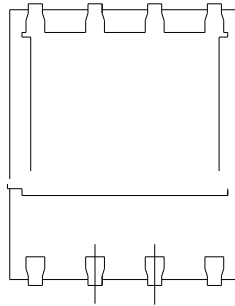
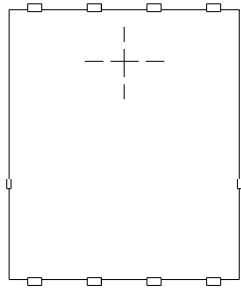
/ Electrical Characteristic Curve



/ Electrical Characteristic Curve



/ Package Dimensions

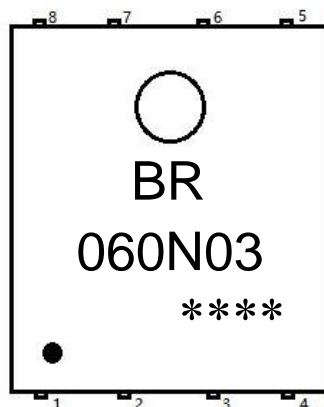


Dimensions In
Millimeterer

Symbol	MIN	TYP	MAX
A	5.90	6.00	6.10
a	3.91	4.01	4.11
A2	5.70	5.75	5.80
B	4.90	5.00	5.10
b	3.37	3.47	3.57
B1	4.80	4.90	5.00
C	0.90	0.9	



/ Marking Instructions



说明：

BR： 为公司代码

060N03： 为为产品型号

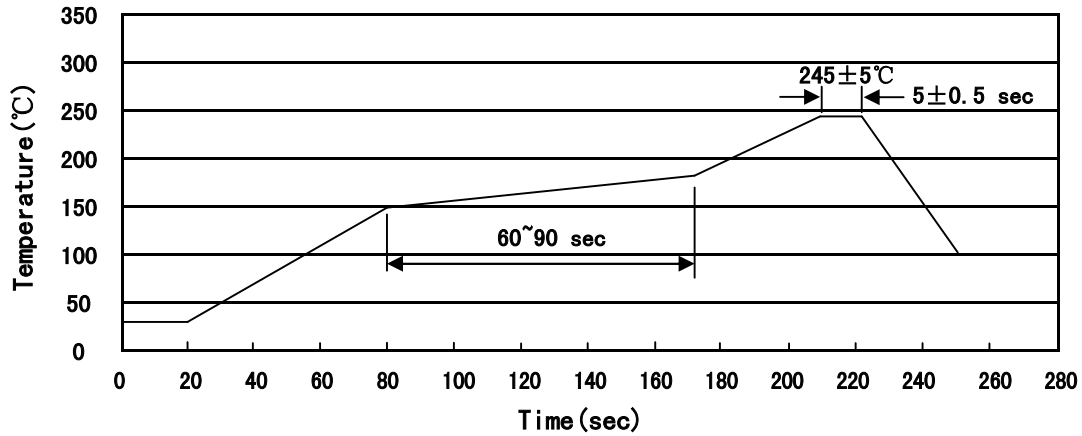
Note：

BR： Company Code

060N03： 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±0.5 | sec; | 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

/ Packaging SPEC.

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	只/卷盘	卷盘/盒	只/盒	盒/箱	只/箱	盒		箱
PDFN5*6	5000	2	10000	6	60000	13" × 12	360 × 360 × 50	380 × 335 × 366

/ Notices