



Rev.A Jun.-2022

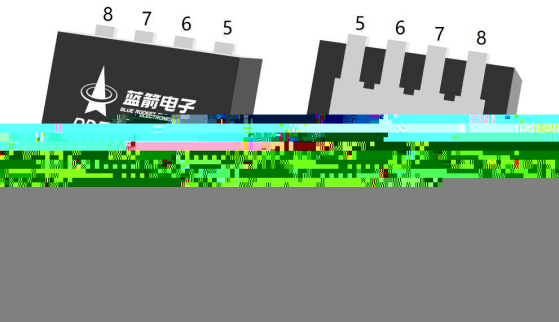
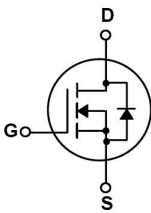
| 版本 | 修订日期      | 有修订的页码 | 修订涉及的内容                | 拟制  | 审核  |
|----|-----------|--------|------------------------|-----|-----|
| A  | 2022.6.28 | ALL    | 根据 AOS-AON7292 制作本厂规格书 | 庞隆基 | 陈逸晞 |
|    |           |        |                        |     |     |
|    |           |        |                        |     |     |
|    |           |        |                        |     |     |
|    |           |        |                        |     |     |



PDFN 3×3A8L N MOS N-Channel Enhancement Mode Field Effect Transistor in a PDFN 3×3A-8L Plastic Package.

$V_{DS}(V) = 100V$   
 $I_D = 22A (V_{GS} = \pm 20V)$   
 $R_{DS(ON)}@10V \leq 25mR(Typ.20mR)$   
HF Product.

DC/DC AC/DC DC/DC  
Synchronous rectification in DC/DC and AC/DC converters, Isolated DC/DC Converters in Telecom and Industrial.



| 出脚   | 定义 |
|------|----|
| Pin1 | S  |
| Pin2 | S  |
| Pin3 | S  |
| Pin4 | G  |
| Pin5 | D  |
| Pin6 | D  |
| Pin7 | D  |
| Pin8 | D  |

See Marking Instructions.



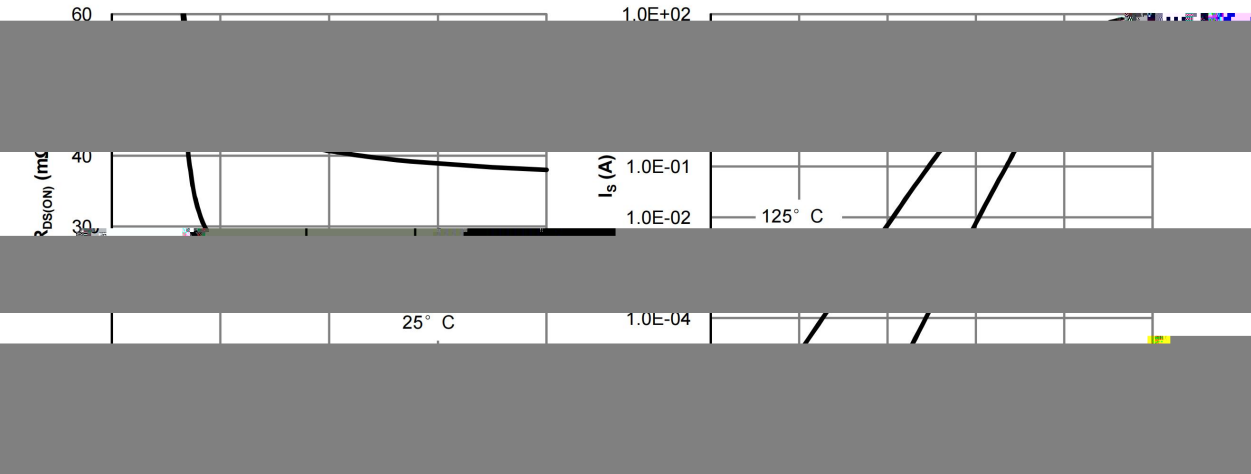
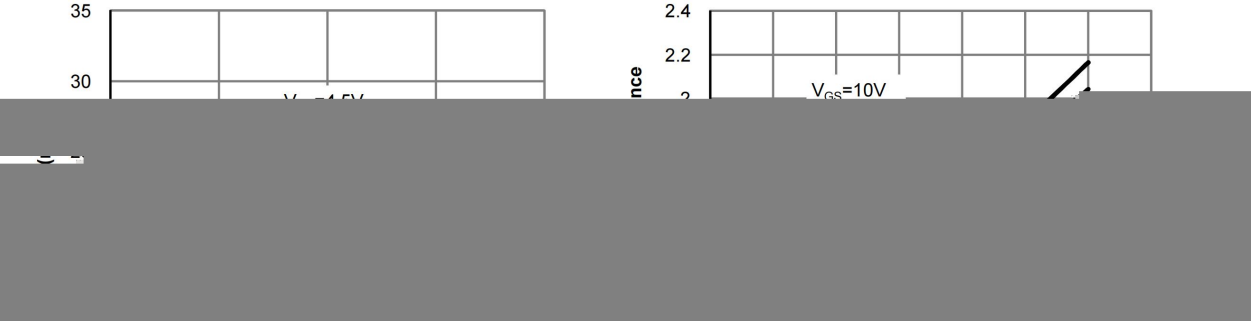
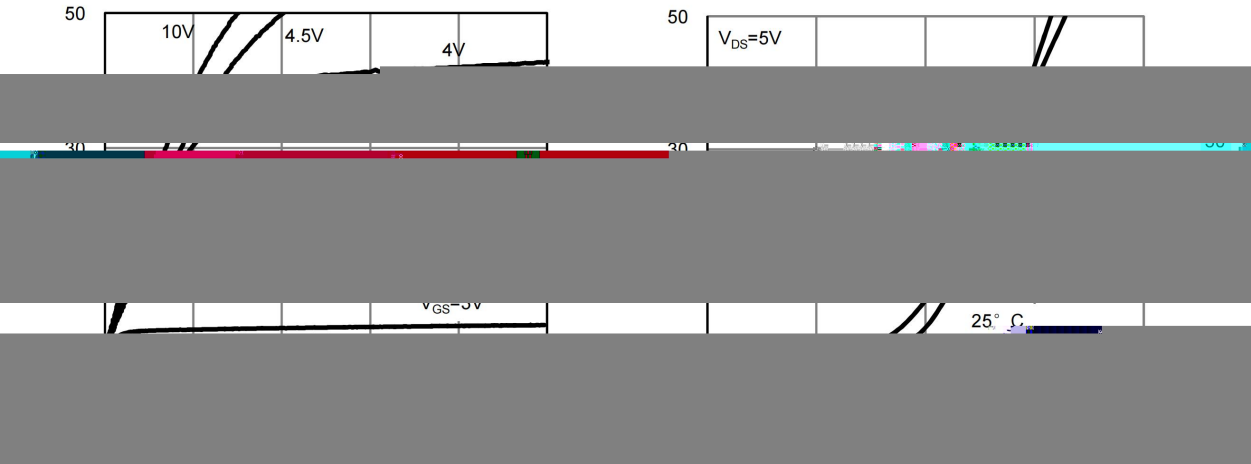
Rev.A Jun.-2022

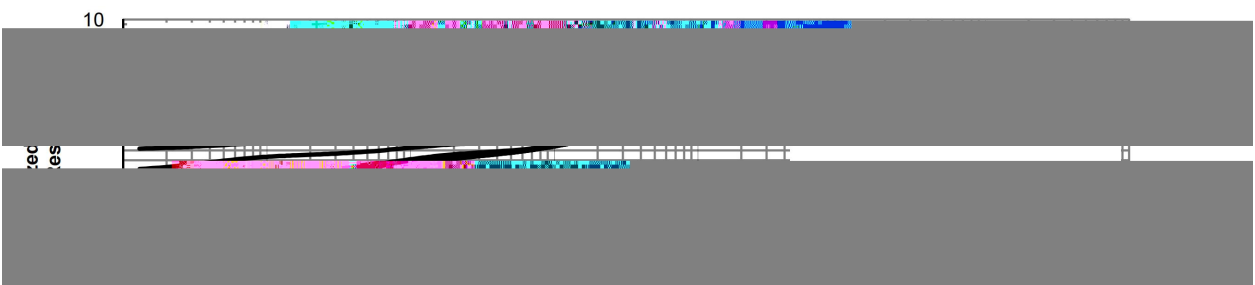
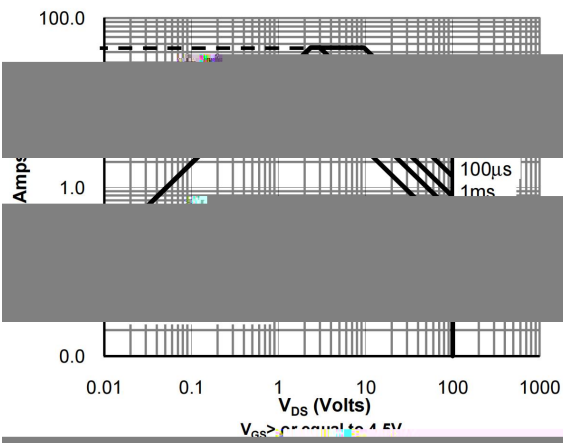
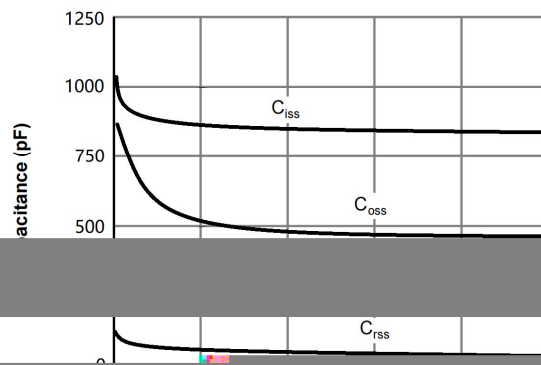
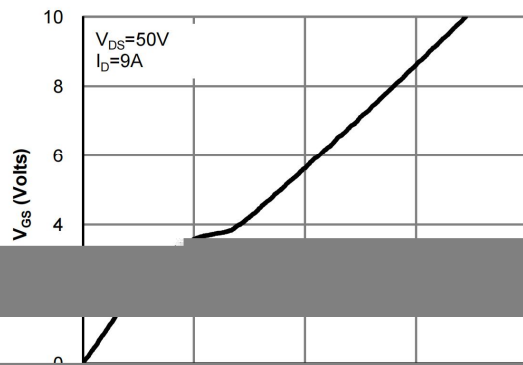
| Parameter              | Symbol                 | Rating   | Unit |
|------------------------|------------------------|----------|------|
| Drain-Source Voltage   | $V_{DS}$               | 100      | V    |
| Drain Current          | $I_D(T_c=25^{\circ}C)$ | 22       | A    |
| Drain Current - Pulsed | $I_{DM}$               | 45       | A    |
| Gate-Source Voltage    | $V_{GS}$               | $\pm 20$ | V    |

mJ



| Parameter                          | Symbol        | Test Conditions                                                  | Min | Typ | Max       | Unit       |
|------------------------------------|---------------|------------------------------------------------------------------|-----|-----|-----------|------------|
| Drain-Source Breakdown Voltage     | $BV_{DSS}$    | $V_{GS}=0V$ $I_D=250\mu A$                                       | 100 | 109 |           | V          |
| Zero Gate Voltage Drain Current    | $I_{DSS}$     | $V_{DS}=100V$ $V_{GS}=0V$                                        |     |     | 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 | 1.6 | 2.5       | V          |
| Static Drain-Source On-Resistance  | $R_{DS(on)}$  | $V_{GS}=10V$ $I_D=20A$                                           |     | 20  | 25        | m $\Omega$ |
|                                    |               | $V_{GS}=4.5V$ $I_D=10A$                                          |     | 25  | 33        | m $\Omega$ |
| Drain-Source Diode Forward Voltage | $V_{SD}$      | $V_{GS}=0V$ $I_S=1A$                                             |     |     | 1.2       | V          |
| Input Capacitance                  | $C_{iss}$     | $V_{DS}=25V$ $V_{GS}=0V$<br>$f=1.0MHz$                           |     | 820 |           | pF         |
| Output Capacitance                 | $C_{oss}$     |                                                                  |     | 475 |           |            |
| Reverse Transfer Capacitance       | $C_{rss}$     |                                                                  |     | 35  |           |            |
| Gate resistance                    | $R_g$         | $V_{GS}=0V$ $V_{DS}=0V$<br>$f=1MHz$                              |     | 1.9 |           | $\Omega$   |
| Total Gate Charge                  | $Q_{g(10V)}$  | $V_{GS}=10V$ $V_{DS}=50V$<br>$I_D=9A$                            |     | 17  |           | nC         |
| Total Gate Charge                  | $Q_{g(4.5V)}$ |                                                                  |     | 9   |           |            |
| Gate Source Charge                 | $Q_{gs}$      |                                                                  |     | 3   |           |            |
| Gate Drain Charge                  | $Q_{gd}$      |                                                                  |     | 3.5 |           |            |
| Turn-On Delay Time                 | $t_{d(on)}$   | $V_{GS}=10V$ $V_{DS}=50V$<br>$R_L=5.5\Omega$ $R_{GEN}=3.0\Omega$ |     | 5   |           | ns         |
| Turn-On Rise Time                  | $t_r$         |                                                                  |     | 3.2 |           |            |
| Turn-Off Delay Time                | $t_{d(off)}$  |                                                                  |     | 21  |           |            |
| Turn-Off Fall Time                 | $t_f$         |                                                                  |     | 3   |           |            |









# BR 250N10S

BR

250N10S

\*\*\*\*



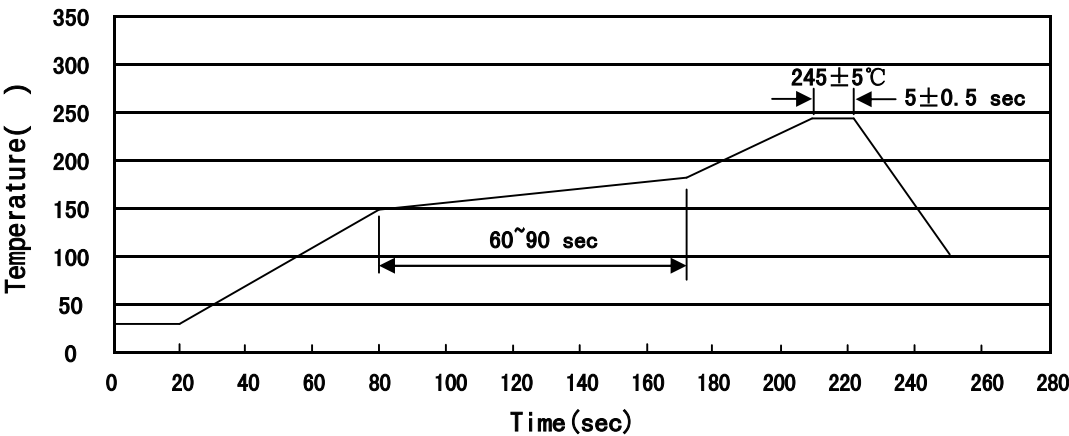
Note:

BR: Company Code

250N10S: Product Type Code

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





- 说明：

  - 1、预热温度 150 ~ 180℃，时间 60 ~ 90sec;
  - 2、峰值温度 245±5℃，时间持续为 5±0.5sec;
  - 3、焊接制程冷却速度为 2 ~ 10℃/sec.
- Note:

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

温度：260±5℃      时间：10±1 sec.      Temp.:260±5℃      Time:10±1 sec

卷盘包装 / REEL

| Package Type<br>封装形式 | Units 包装数量         |                         |                        |                              |                        | Dimension 包装尺寸 (unit: mm <sup>3</sup> ) |             |             |
|----------------------|--------------------|-------------------------|------------------------|------------------------------|------------------------|-----------------------------------------|-------------|-------------|
|                      | Units/Reel<br>只/卷盘 | Reels/Inner Box<br>卷盘/盒 | Units/Inner Box<br>只/盒 | Inner Boxes/Outer Box<br>盒/箱 | Units/Outer Box<br>只/箱 | Reel                                    | Inner Box 盒 | Outer Box 箱 |
| PDFN 3 × 3A-8L       | 5,000              | 2                       | 10,000                 | 6                            | 60,000                 | 13" ×12                                 | 360×360×50  | 380×335×366 |