

PDFN3×3A-8L                      N                      MOS

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

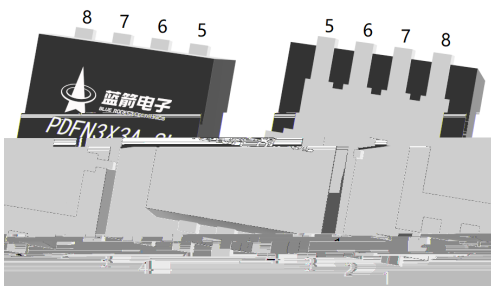
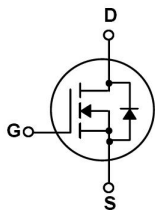
$V_{DS} (V) = 30V$                        $I_D = 76A (V_{GS} = \pm 20V)$

$R_{DS(ON)}@10V \leq 3.5m\Omega (Typ. 3.3m\Omega)$

$R_{DS(ON)}@4.5V \leq 6.5m\Omega (Typ. 4.7m\Omega)$

HF Product.

Load Switch Applications, Battery Power Management.



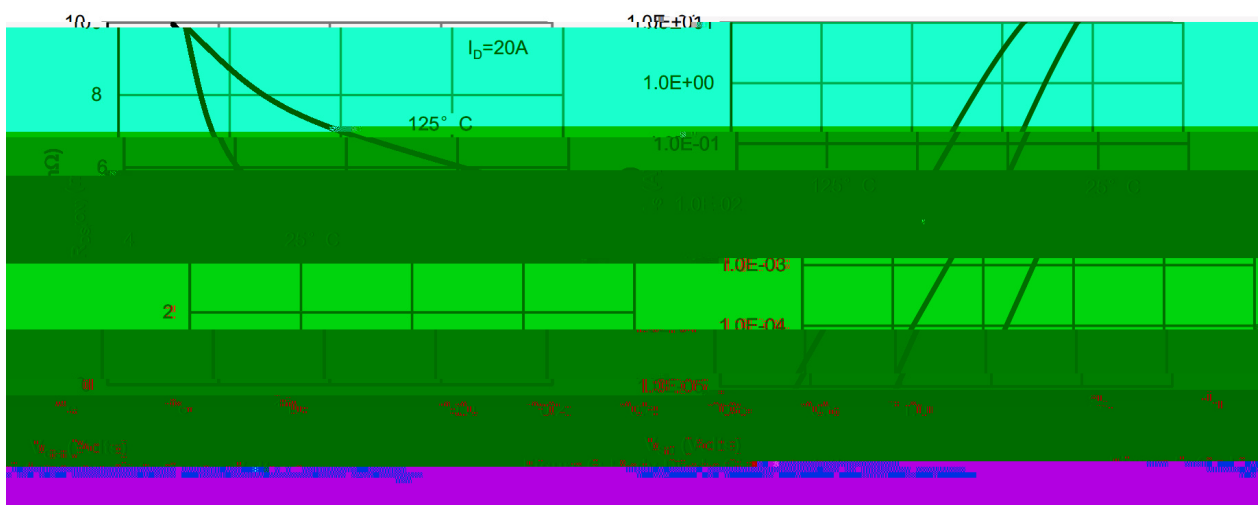
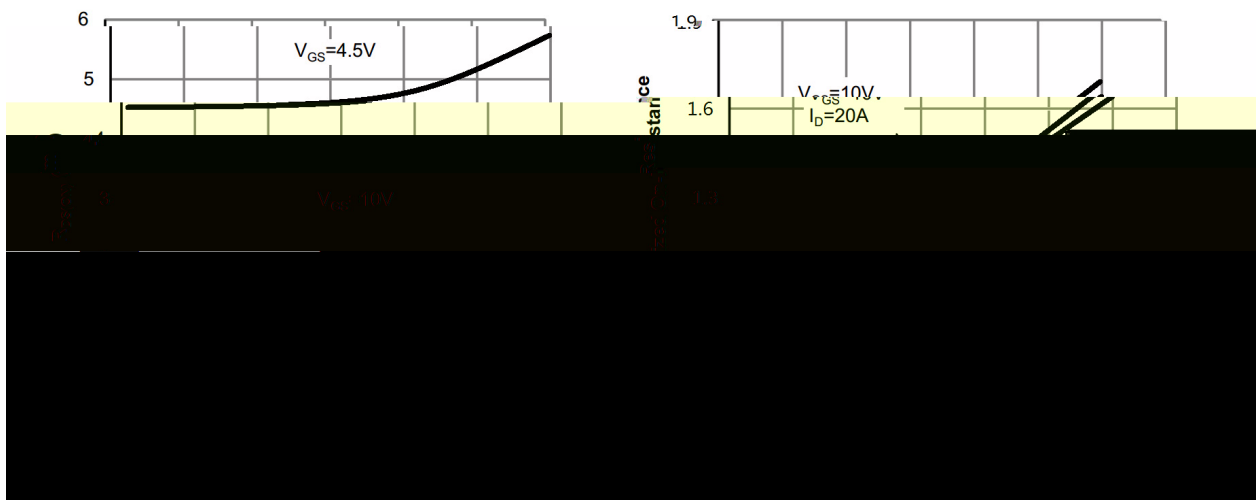
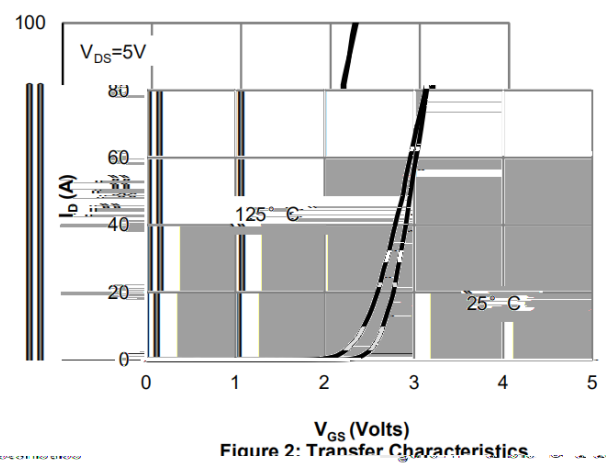
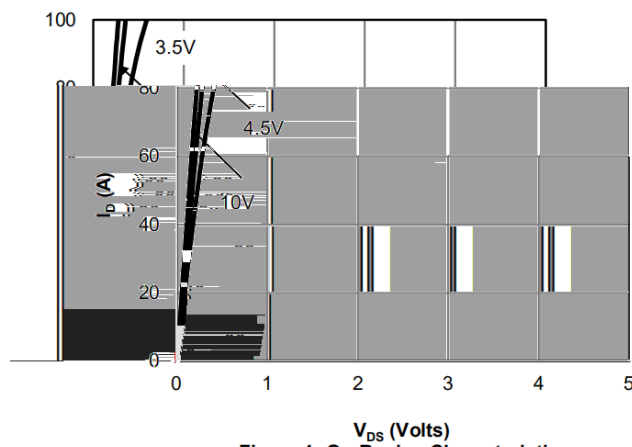
| 出脚   | 定义 |
|------|----|
| Pin1 | S  |
| Pin2 | S  |
| Pin3 | S  |
| Pin4 | G  |
| Pin5 | D  |
| Pin6 | D  |
| Pin7 | D  |
| Pin8 | D  |

See Marking Instructions.

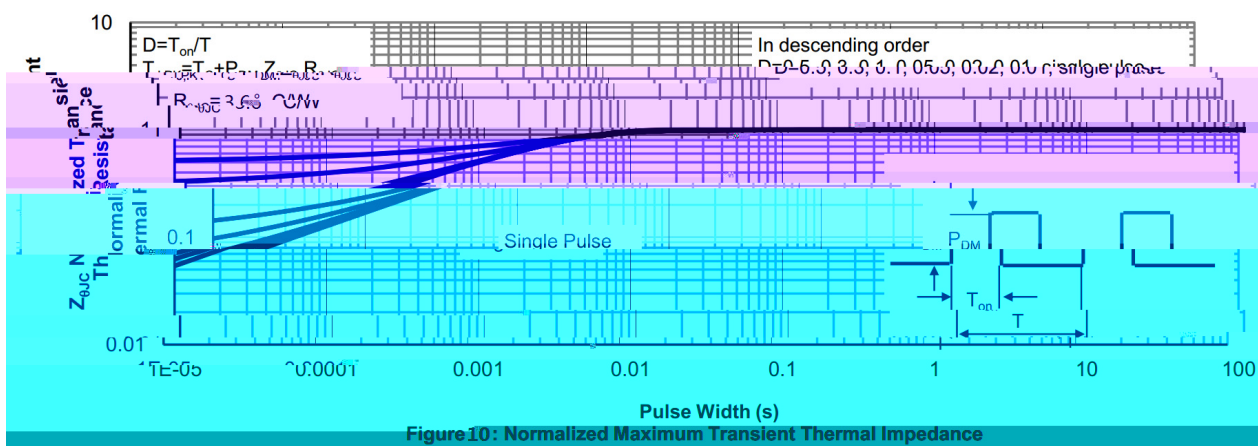
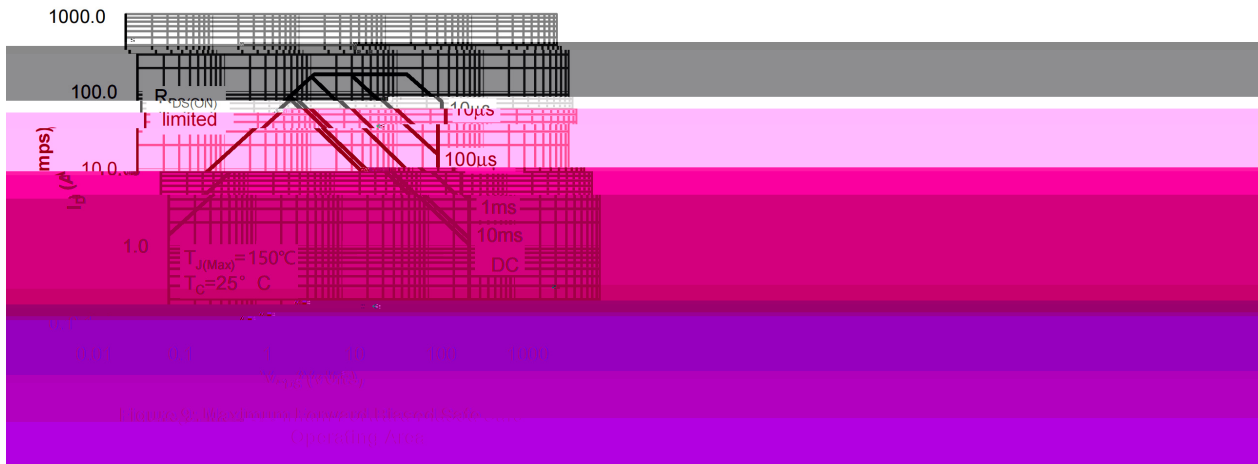
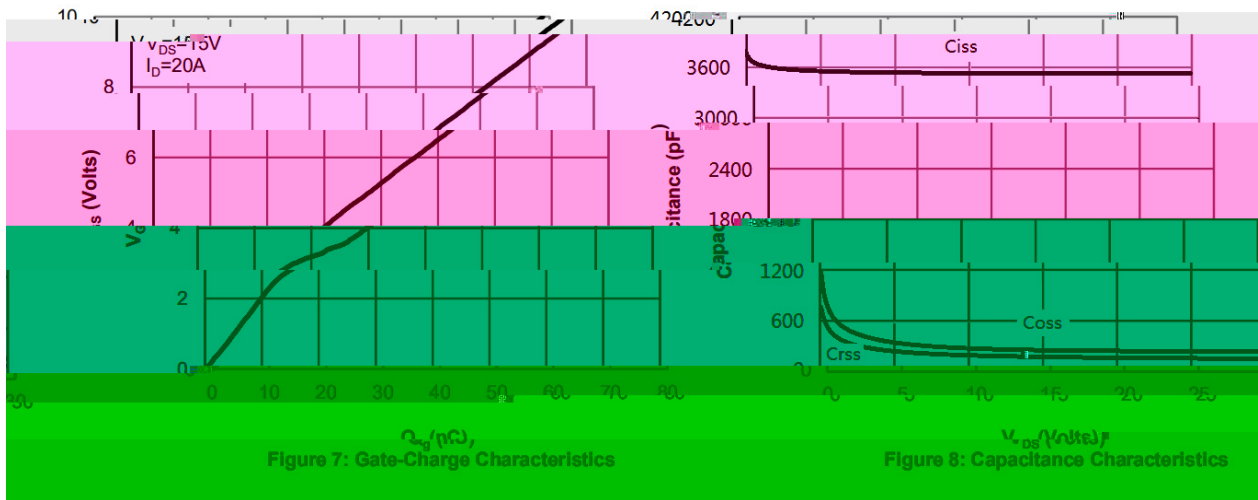


| Parameter                               |              | Symbol                      | Rating     | Unit |
|-----------------------------------------|--------------|-----------------------------|------------|------|
| Drain-Source Voltage                    |              | $V_{DS}$                    | 30         | V    |
| Drain Current                           |              | $I_D(T_c=25^\circ\text{C})$ | 76         | A    |
| Drain Current - Pulsed                  |              | $I_{DM}$                    | 190        | A    |
| Gate-Source Voltage                     |              | $V_{GS}$                    | $\pm 20$   | V    |
| Single Pulsed Avalanche Energy          |              | $E_{AS}$                    | 449        | mJ   |
| Avalanche Current                       |              | $I_{AS}$                    | 33.5       | A    |
| Power Dissipation                       |              | $P_D(T_c=25^\circ\text{C})$ | 35         | W    |
| Operating and Storage Temperature Range |              | $T_J, T_{stg}$              | -55 to 150 |      |
| Junction-to-Ambient                     | $t \leq 10$  | $R_{\theta JA}$             | 42         | /W   |
| Junction-to-Ambient                     | Steady-State |                             | 78         |      |
| Junction-to-Case                        | Steady-State | $R_{\theta JC}$             | 3.6        |      |

| Parameter                          | Symbol        | Test Conditions                                                   | Min | Typ  | Max       | Unit       |
|------------------------------------|---------------|-------------------------------------------------------------------|-----|------|-----------|------------|
| Drain-Source Breakdown Voltage     | $BV_{DSS}$    | $V_{GS}=0V$ $I_D=250\mu A$                                        | 30  | 35   |           | 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 | 1.5  | 3.0       | V          |
| Static Drain-Source On-Resistance  | $R_{DS(on)}$  | $V_{GS}=10V$ $I_D=20A$                                            |     | 3.3  | 3.5       | m $\Omega$ |
|                                    |               | $V_{GS}=4.5V$ $I_D=10A$                                           |     | 4.7  | 6.5       | 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>$f=1.0MHz$                            |     | 3470 |           | pF         |
| Output Capacitance                 | $C_{oss}$     |                                                                   |     | 270  |           |            |
| Reverse Transfer Capacitance       | $C_{rss}$     |                                                                   |     | 240  |           |            |
| Gate resistance                    | $R_g$         | $V_{GS}=0V$ $V_{DS}=0V$<br>$f=1MHz$                               |     | 1.7  |           | $\Omega$   |
| Total Gate Charge                  | $Q_{g(10V)}$  | $V_{GS}=10V$ $V_{DS}=15V$<br>$I_D=20A$                            |     | 80   |           | nC         |
| Total Gate Charge                  | $Q_{g(4.5V)}$ |                                                                   |     | 35   |           |            |
| Gate Source Charge                 | $Q_{gs}$      |                                                                   |     | 13   |           |            |
| Gate Drain Charge                  | $Q_{gd}$      |                                                                   |     | 13   |           |            |
| Turn-On Delay Time                 | $t_{d(on)}$   | $V_{GS}=10V$ $V_{DS}=15V$<br>$R_L=0.75\Omega$ $R_{GEN}=3.0\Omega$ |     | 6.7  |           | ns         |
| Turn-On Rise Time                  | $t_r$         |                                                                   |     | 3.8  |           |            |
| Turn-Off Delay Time                | $t_{d(off)}$  |                                                                   |     | 32   |           |            |
| Turn-Off Fall Time                 | $t_f$         |                                                                   |     | 5.2  |           |            |

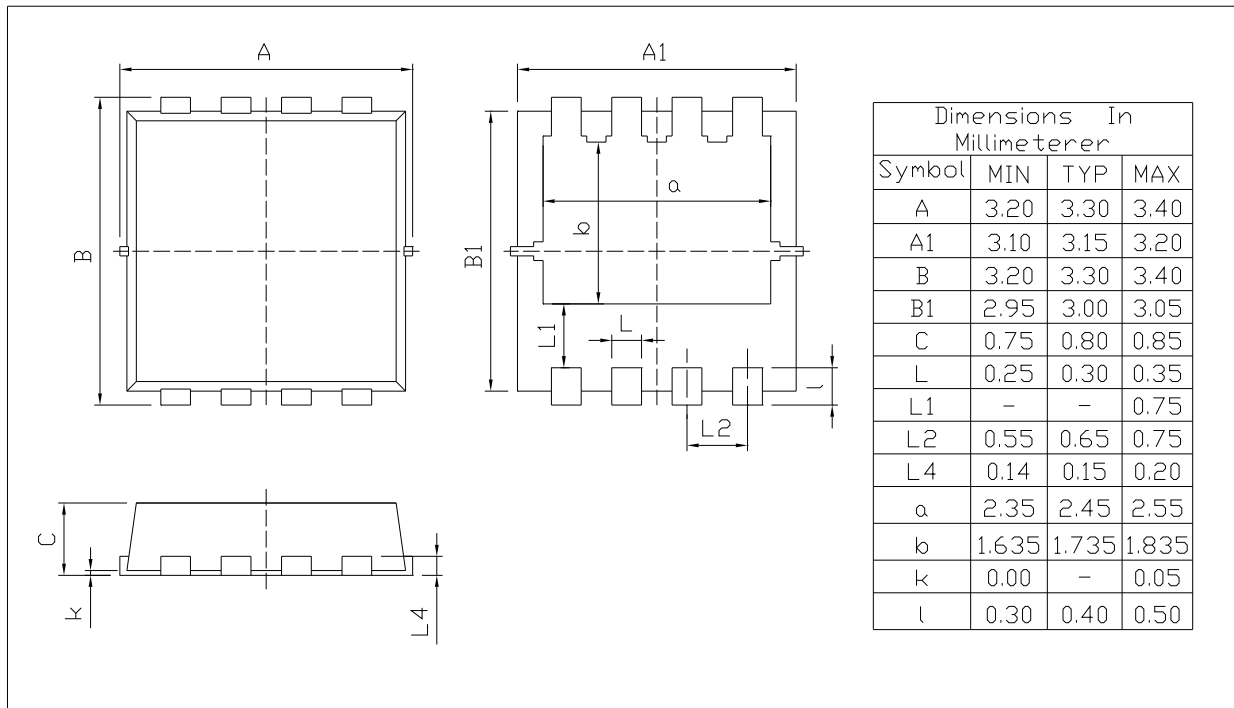


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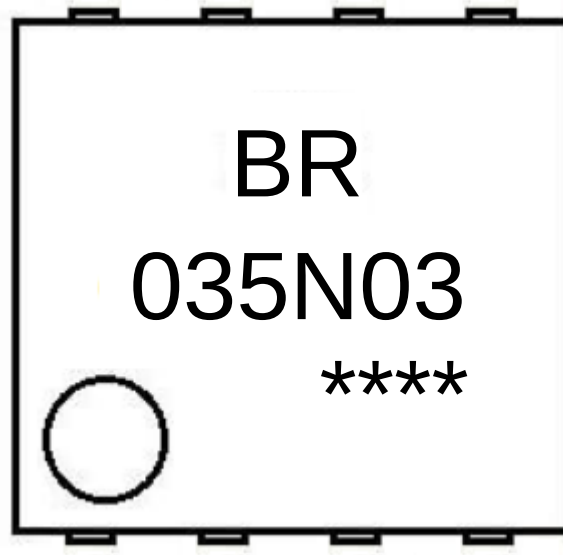


PDFN3X3A-8L

Unit:mm



Rev.00 202011



BR

035N03

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Note:

BR: Company Code

035N03: Product Type Code

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

Temperature Profile for IR Reflow Soldering(Pb-Free)

|  |
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|  |
|  |
|  |
|  |
|  |
|  |
|  |

- 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.

260±5

10±1 sec.

Temp.:260±5

Time:10±1 sec

/ REEL