PDFN5×6 N

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

$V_{DS}$

| Parameter | Symbol | Rating | Unit |
|---|---|---|---|
| Drain-Source Voltage | $V_{DS}$ | 60 | V |
| Continuous Drain Current | $I_D$(Tc=25 ) | 81 | A |
| Pulsed Drain Current | $I_{DM}$ | 256 | A |
| Gate-Source Voltage | $V_{GS}$ | ± 20 | V |

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Turn-On Delay Time | $t_{d(on)}$ | $V_{GS}$=10V $V_{DS}$=30V<br>$R_L$=1.5Ω $R_{GEN}$=3Ω | | 7.6 | | ns |
| Turn-On Rise Time | $t_r$ | | | 6.7 | | |
| Turn-Off Delay Time | $t_{d(off)}$ | | | 39 | | |
| Turn-Off Fall Time | $t_f$ | | | 8.5 | | |

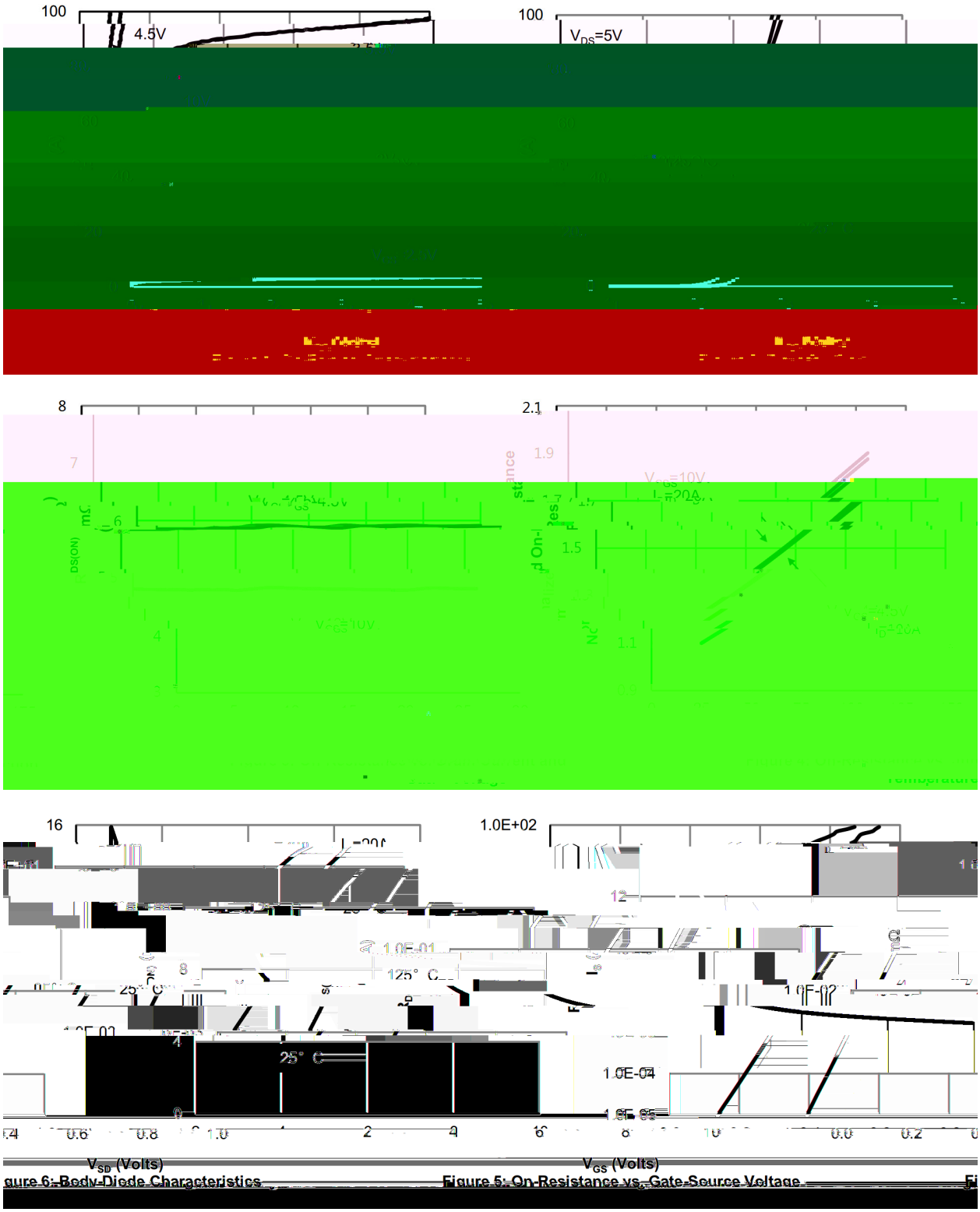
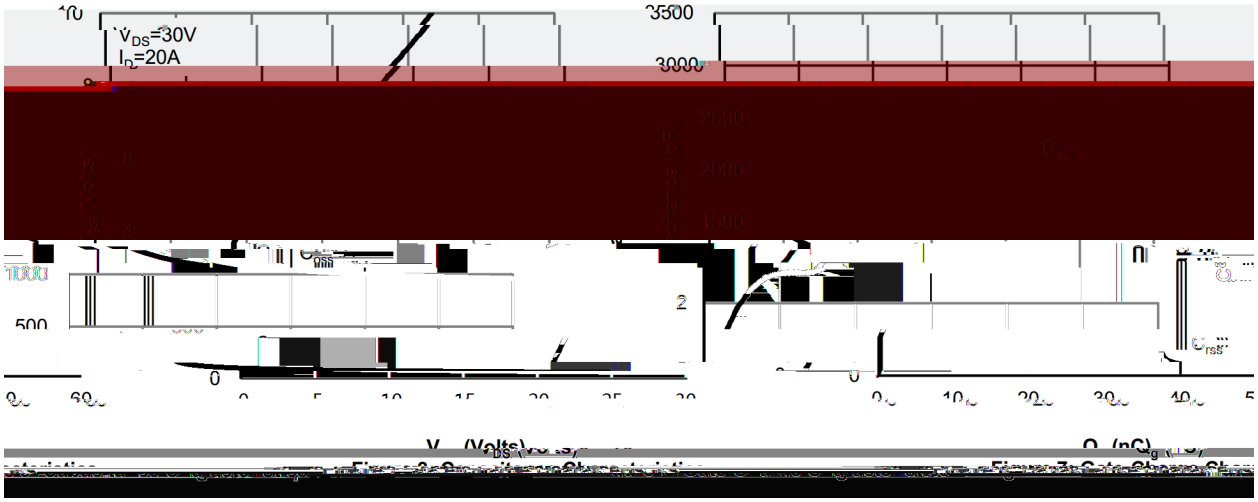
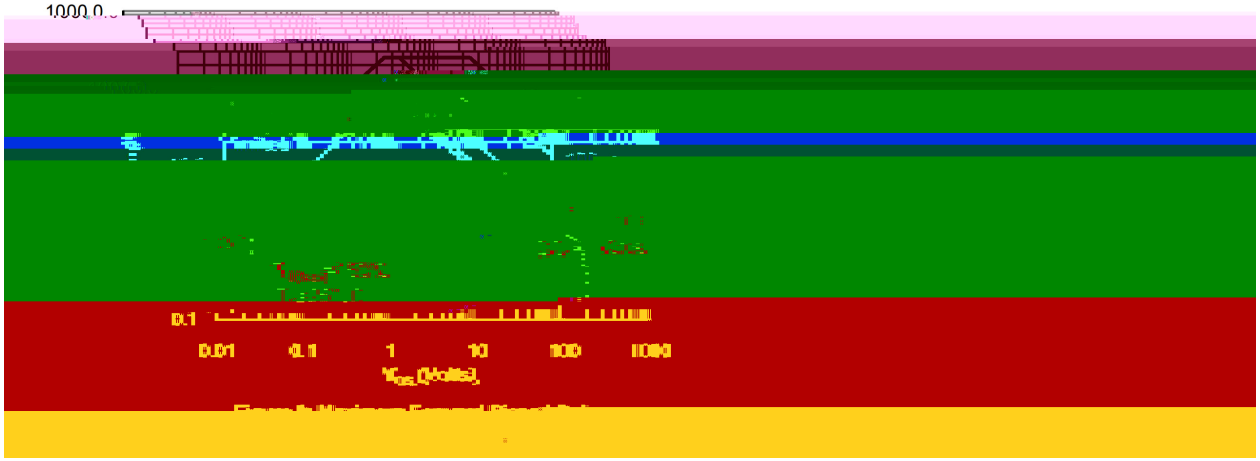
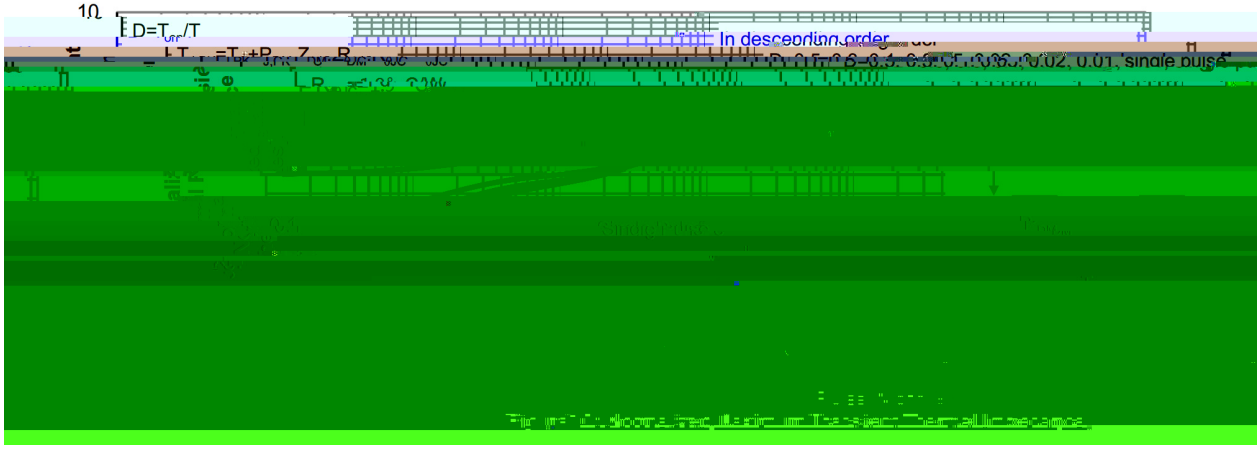



Figure 6: Body-Diode Characteristics

Figure 5: On-Resistance vs. Gate-Source Voltage

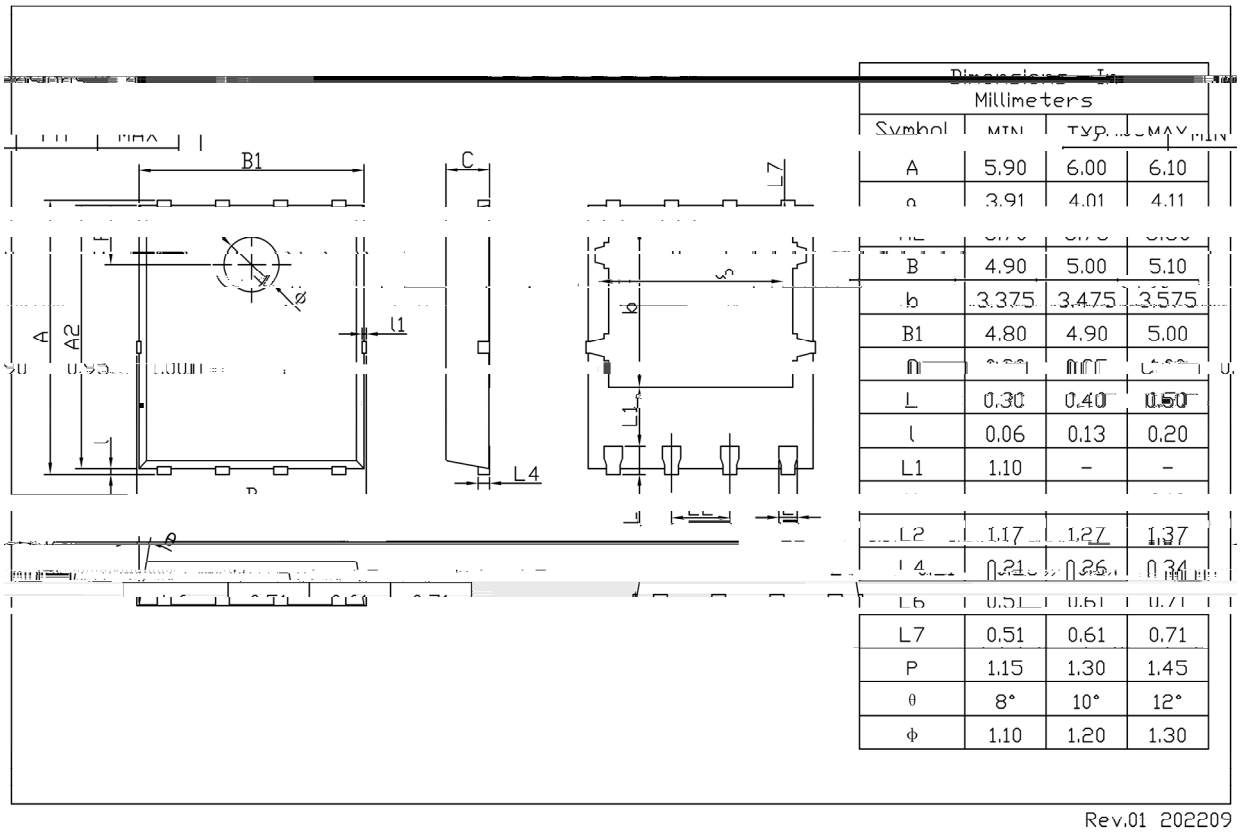

$V_{DS}$=30V
$I_D$=20A
3500
3000
2500
2000
1500
1000
500
0
2
0
10
20
30
40


0.1
0.01
0.1
1
10
100
1000


D=$T_{on}$/T
In descending order
0.5, 0.2, 0.1, 0.05, 0.02, 0.01, single pulse

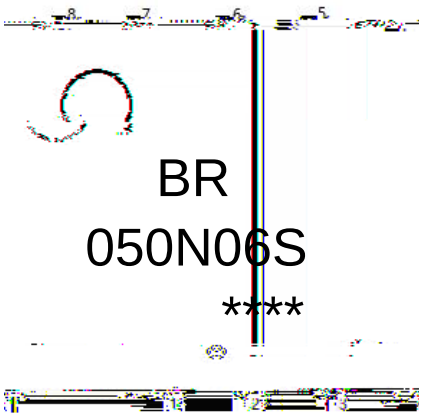
PDFN5×6

Unit:mm




| Dimensions In Millimeters | | | |
|---|---|---|---|
| Symbol | MIN | TYP | MAX |
| A | 5.90 | 6.00 | 6.10 |
| [illegible] | 3.91 | 4.01 | 4.11 |
| B | 4.90 | 5.00 | 5.10 |
| b | 3.375 | 3.475 | 3.575 |
| B1 | 4.80 | 4.90 | 5.00 |
| [illegible] | [illegible] | [illegible] | [illegible] |
| L | 0.30 | 0.40 | 0.50 |
| l | 0.06 | 0.13 | 0.20 |
| L1 | 1.10 | – | – |
| [illegible] | | | |
| L2 | 1.17 | 1.27 | 1.37 |
| L4 | 0.21 | 0.26 | 0.34 |
| L6 | 0.51 | 0.61 | 0.71 |
| L7 | 0.51 | 0.61 | 0.71 |
| P | 1.15 | 1.30 | 1.45 |
| θ | 8° | 10° | 12° |
| Φ | 1.10 | 1.20 | 1.30 |

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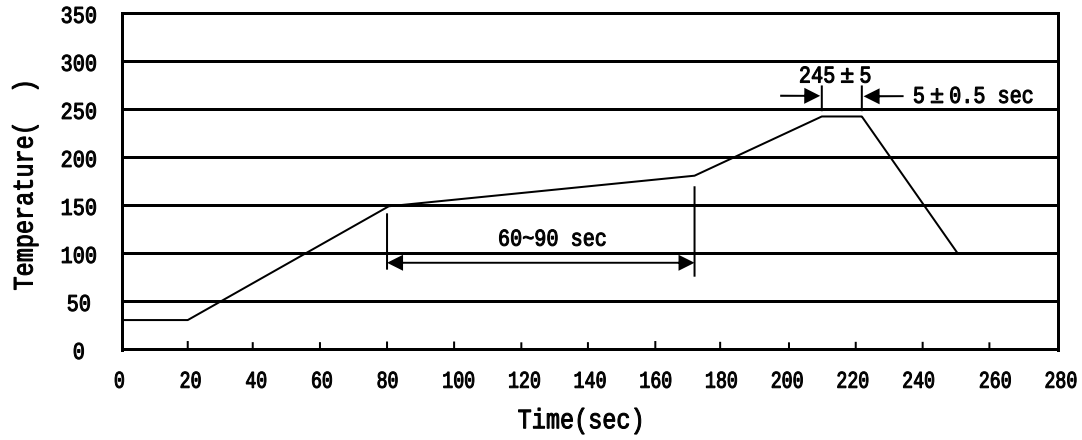
050N06S

****

Note

| | |
|---|---|
| BR | Company Code |
| 050N06S | Product Type Code |
| ****: | Lot No. Code, code change with Lot No |

## Temperature Profile for IR Reflow Soldering(Pb-Free)




Note:

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

| Package Type | Units | | | | | Dimension | | (unit mm³) |
|---|---|---|---|---|---|---|---|---|
| | Units/Reel / | Reels/Inner Box / | Units/Inner Box / | Inner Boxes/Outer Box / | Units/Outer Box / | Reel | Inner Box | Outer Box |
| PDFN5×6 | 5,000 | 2 | 10,000 | 6 | 60,000 | 13''×12 | 360×360×50 | 380×335×366 |