



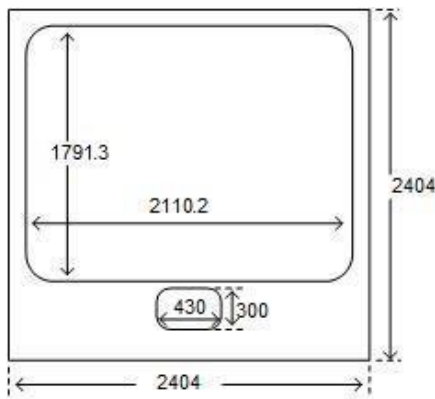
# NDM60S5W

Fast Recovery N-channel MOSFET (Ultra Low Trr)

Rev.1.0

2021/9/27

## Mechanical Data



| Item                            | Information  |                 |
|---------------------------------|--|-----------------|
| Chip Size                       | 2343.2*2343.2  | um <sup>2</sup> |
| Gate Pad Size                   | 430*300  |                 |
| Source Pad Size                 | 2110.2*1791.3  |                 |
| Scribe Line Width               | 60.8   | um              |
| Wafer Thickness                 | 254  |                 |
| Wafer diameter                  | 150  | mm              |
| Source Metallization            | Al, Si, Cu   |                 |
| Drain Metallization             | Ti, Ni, Ag   |                 |
| Reject Ink Dot Size             | ø 10mil  |                 |
| Recommended Storage Environment | Store in original container, in dry nitrogen, (6 months at an ambient temperature of 23°C+/-3°C) |                 |

## Electrical characteristics in C/P test @Tj=25°C

| Parameter            | Description                       | Min. | Typ. | Max. | Unit | Test Condition   |
|----------------------|-----------------------------------|------|------|------|------|--|
| V <sub>(BR)DSS</sub> | Drain-Source Breakdown Voltage    | 600  | -    | -    | V    | V <sub>GS</sub> =0V, I <sub>D</sub> =250uA               |
| R <sub>DS(ON)</sub>  | Static Drain-Source On-Resistance | -    | 3.1  | 3.4  | Ω    | V <sub>GS</sub> =10V, I <sub>D</sub> =2.5A               |
| V <sub>GS(th)</sub>  | Gate Threshold Voltage            | 1.5  | -    | 4    | V    | V <sub>GS</sub> =V <sub>GS</sub> , I <sub>D</sub> =250uA |
| I <sub>DSS</sub>     | Drain-to-Source Leakage Current   | -    | -    | 0.3  | uA   | V <sub>DS</sub> =600V, V <sub>GS</sub> =0V               |
| I <sub>GSS</sub>     | Gate-Body Leakage Current         | -    | -    | 0.3  | uA   | V <sub>DS</sub> =0V, V <sub>GS</sub> =±30V               |

## Source to drain diode ratings characteristics

| Symbol          | Parameter                  | Test condition  | Min. | Typ. | Max. | Unit |
|-----------------|----------------------------|---|------|------|------|------|
| I <sub>S</sub>  | Continuous source current  | Integral reverse p-n Junction current   | -    | -    | 5.5  | A    |
| I <sub>SM</sub> | Pulsed source current      |   | -    | -    | 22   | A    |
| V <sub>SD</sub> | Diode forward voltage drop | I <sub>S</sub> =2.5A, V <sub>GS</sub> =0V   | -    | 0.9  | 1.2  | V    |
| Trr             | Reverse recovery time      | I <sub>S</sub> =1A, V <sub>DD</sub> =30V<br>V <sub>GS</sub> =0V, dI <sub>F</sub> /dt=50A/us | -    | 60   |      | ns   |