



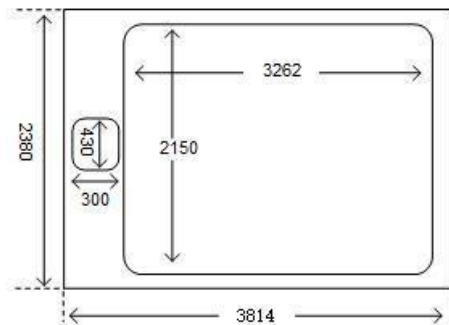
# NDM50S7W

Fast Recovery N-channel MOSFET (Ultra Low Trr)

Rev.1.0

2021/9/27

## Mechanical Data



Item	Information	
Chip Size	3874*2440	um <sup>2</sup>
Gate Pad Size	300*430	
Source Pad Size	3262*2150	
Scribe Line Width	60	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	500	-	-	V	V <sub>GS</sub> =0V, I <sub>D</sub> =250uA
R <sub>DS(ON)</sub>	Static Drain-Source On-Resistance	-	0.9	1.2	Ω	V <sub>GS</sub> =10V, I <sub>D</sub> =3.5A
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	-	-	0.1	uA	V <sub>DS</sub> =500V, V <sub>GS</sub> =0V
I <sub>GSS</sub>	Gate-Body Leakage Current	-	-	0.1	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> =3.5A, V <sub>GS</sub> =0V	-	0.9	1.2	V
T <sub>rr</sub>	Reverse recovery time	I <sub>S</sub> =1A, V <sub>DD</sub> =30V V <sub>GS</sub> =0V, dI <sub>F</sub> /dt=50A/us	-	70		ns

