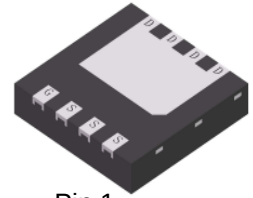
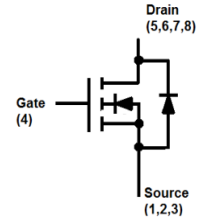


LNB8308HSDT0AG-HW

30V N Channel Logic Level Enhancement Mode MOSFET



Pin 1
DFN3333-8A



1. FEATURES

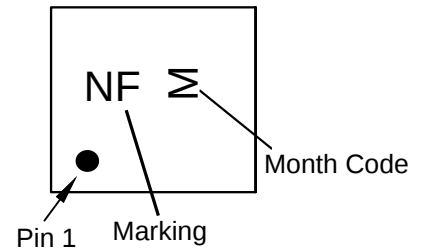
- Low RDS(on) trench technology.
- Low thermal impedance.
- Fast switching speed.
- We declare that the material of product compliance with RoHS requirements and Halogen Free.

2. APPLICATIONS

- Power Routing
- DC/DC Conversion
- Motor Drives

3. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
LNB8308HSDT0AG-HW	NF	2000/Tape&Reel



4. MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
Drain–Source Voltage	VDSS	30	V
Gate–to–Source Voltage – Continuous	VGS	±20	V
Drain Current	ID	50	A
– Continuous TC =25°C		22	
– Continuous TC =100°C			
Pulsed Drain Current(Note 1)	IDM	140	
Avalanched Current	IAS	18.6	A
Avalanche Energy	EAS	17.3	mJ
Power Dissipation	PD	50	W
TC =25°C		20	W
TC =100°C			
Operating Junction and Storage Temperature Range	Tj/Tstg	-50 to 150	°C

1. Pulse width limited by maximum junction temperature.

5. THERMAL CHARACTERISTICS

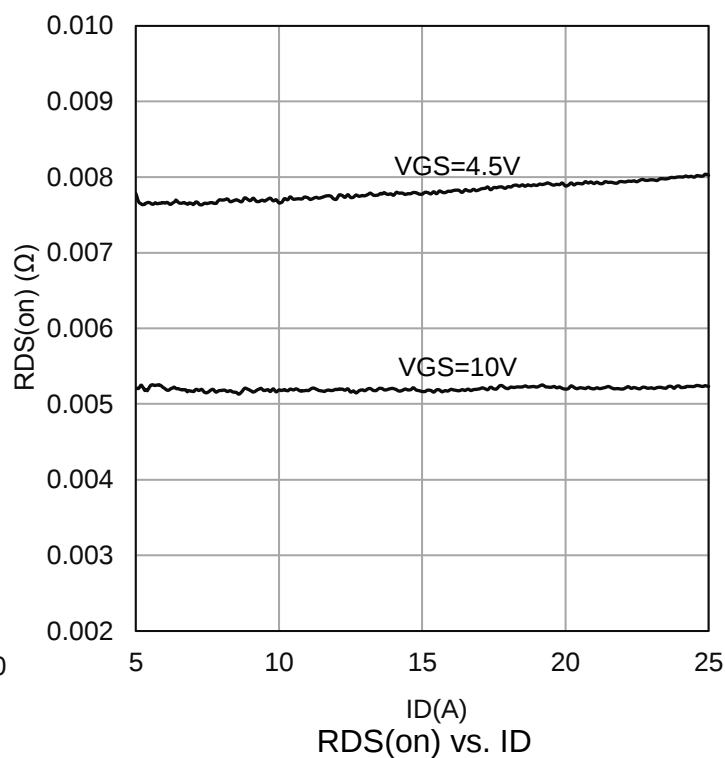
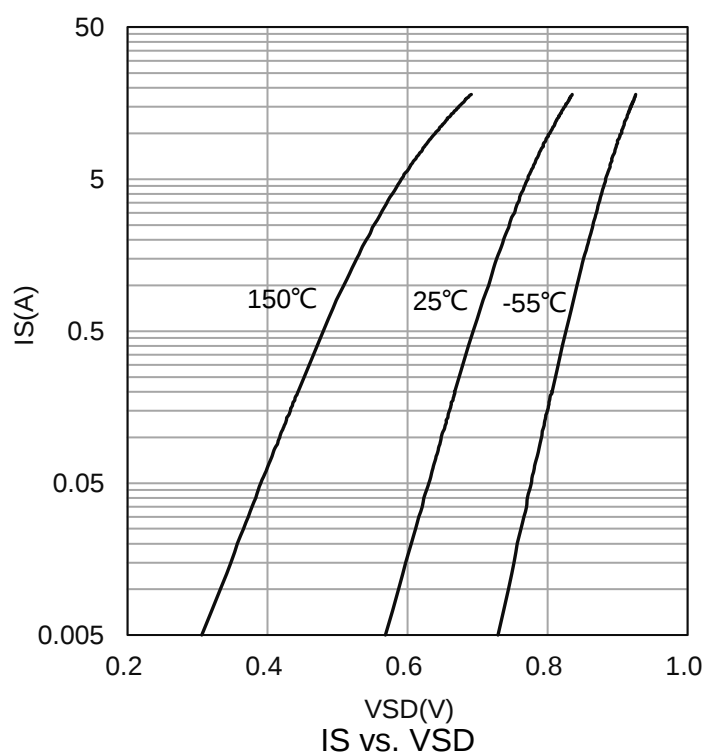
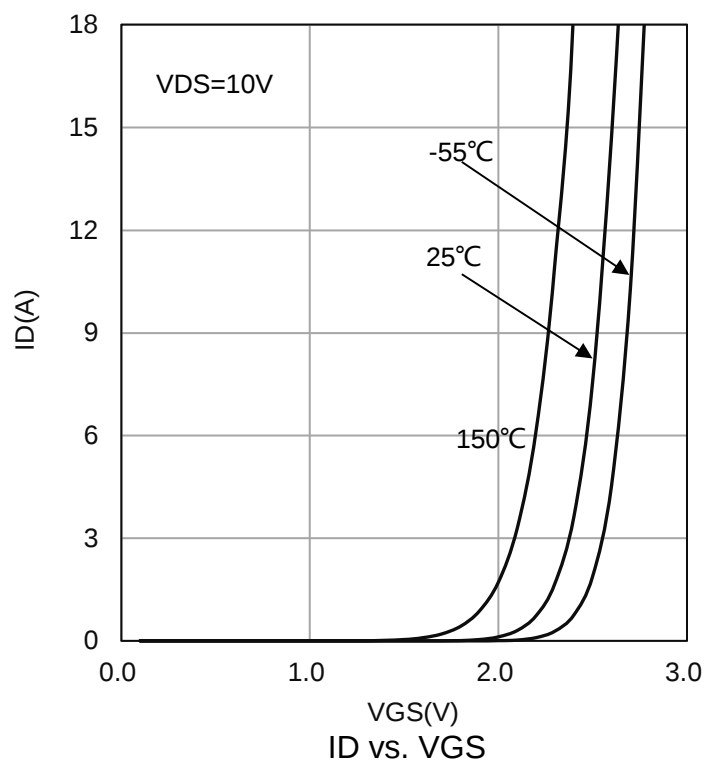
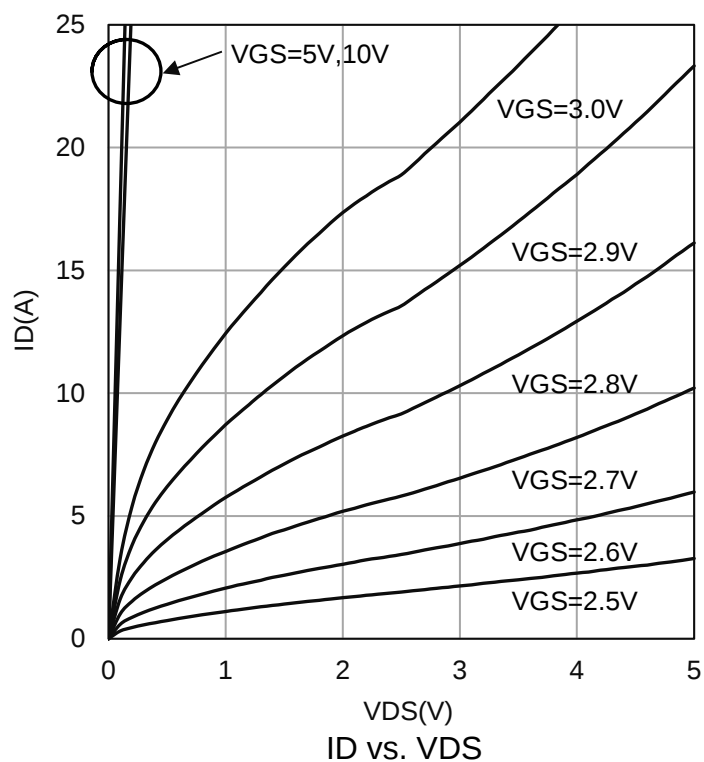
Parameter		Symbol	Limits	Unit
Maximum Junction-to-Ambient(Note 1)	t≤10s	RθJA	35	°C/W
	Steady State		81	
Maximum Junction-to-Case		RθJC	6.5	°C/W

6. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

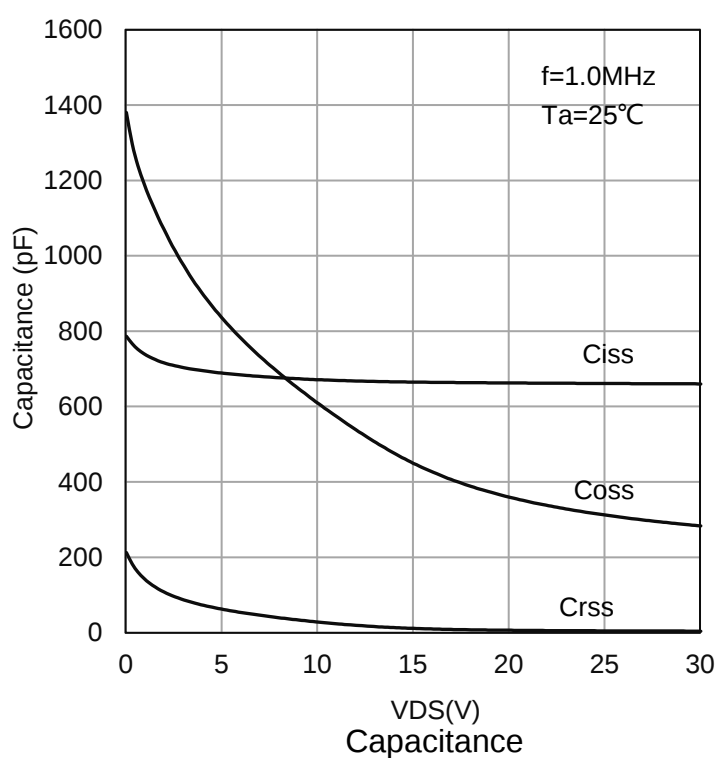
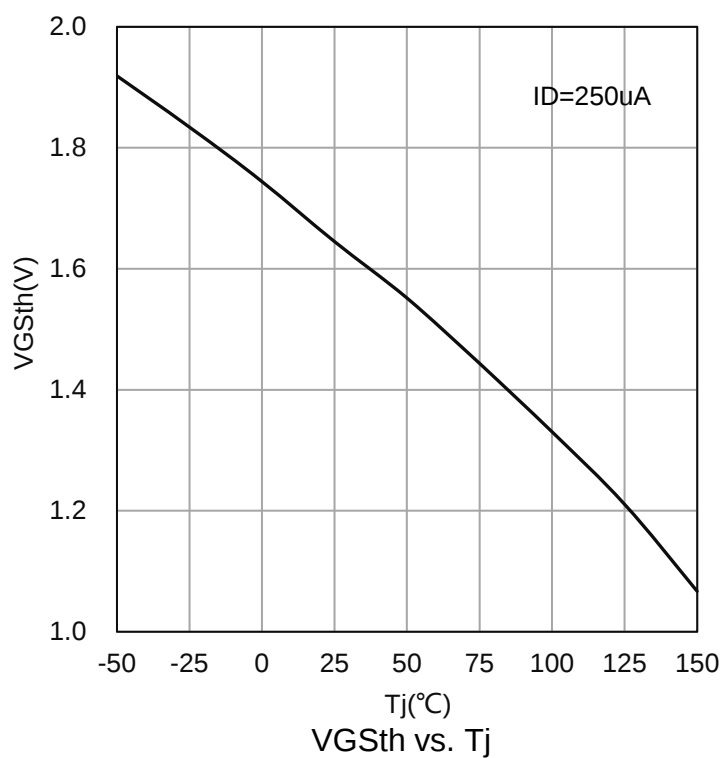
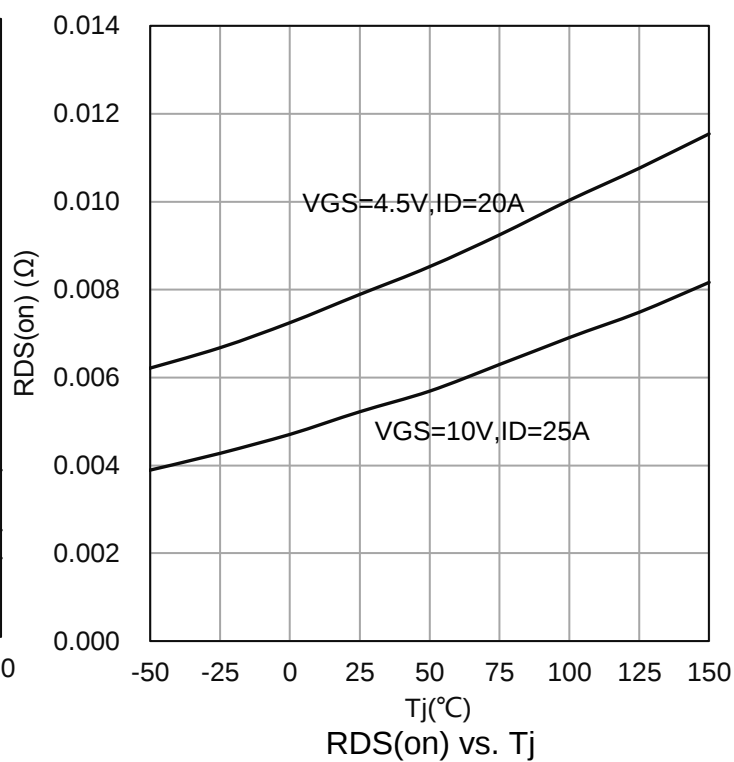
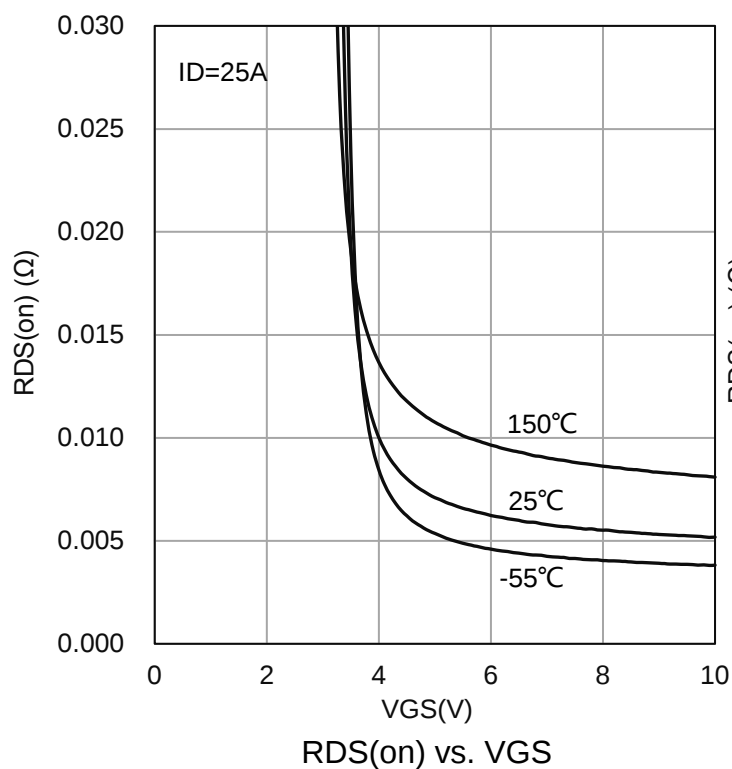
Characteristic	Symbol	Min.	Typ.	Max.	Unit
Static					
Drain–Source Breakdown Voltage (VGS = 0, ID = 250μA)	V(BR)DSS	30	-	-	V
Drain-Source Leakage Current (VDS = 24V, VGS = 0V) (VDS = 20V, VGS = 0V, TJ = 125 °C)	IDSS	- -	- -	1 25	μA
Gate–Body Leakage Current (VGS = ±20V, VDS = 0V)	IGSS	-	-	±100	nA
Gate Threshold Voltage (VDS = VGS, ID = 250μA)	VGS(th)	1.2	1.7	3.0	V
Static Drain–Source On–State Resistance (VGS = 10V, ID = 25A) (VGS = 4.5V, ID = 20A)	RDS(on)	- -	5.9 8.9	7 10	mΩ
Dynamic					
Input Capacitance (VGS = 0 V, f = 1.0MHz, VDS = 15 V)	Ciss	-	665	1058	pF
Output Capacitance (VGS = 0 V, f = 1.0MHz, VDS = 15 V)	Coss	-	449	675	
Reverse Transfer Capacitance (VGS = 0 V, f = 1.0MHz, VDS = 15 V)	Crss	-	11	19	
Total Gate Charge(VGS=10V)	(VDS = 15V, VGS = 10V, ID = 25A)	Qg	-	9.7	nC
Total Gate Charge(VGS=4.5V)		Qg	-	4.7	
Gate-Source Charge		Qgs	-	1.5	
Gate-Drain Charge		Qgd	-	2.3	
Turn-On Delay Time	(VDS = 15V, ID = 20A, VGS = 10V, RGS = 2.7Ω)	td(on)	-	10	ns
Rise Time		tr	-	10	
Turn-Off Delay Time		td(off)	-	20	
Fall Time		tf	-	15	
Gate Resistance (VGS = 15mV, VDS = 0V, f = 1MHz)	Rg	-	1.5	3	Ω
Forward Voltage (IF = 25A, VGS = 0V)	VSD	-	-	1.3	V

2. Pulse Test: Pulse Width ≤ 300 μs, Duty Cycle ≤ 2.0%.

7. ELECTRICAL CHARACTERISTICS CURVES

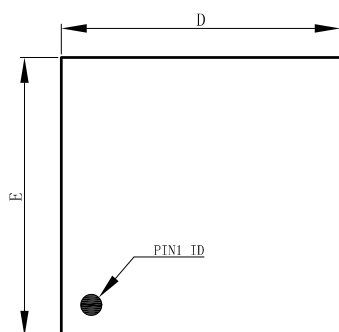


7. ELECTRICAL CHARACTERISTICS CURVES(Con.)

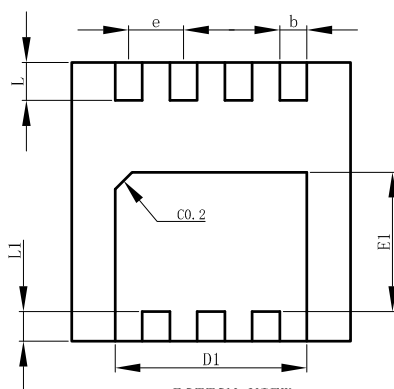


8.OUTLINE AND DIMENSIONS

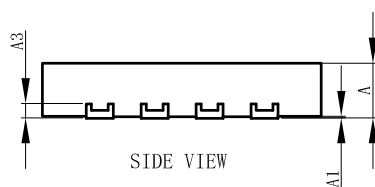
DFN3333-8A



TOP VIEW



BOTTOM VIEW

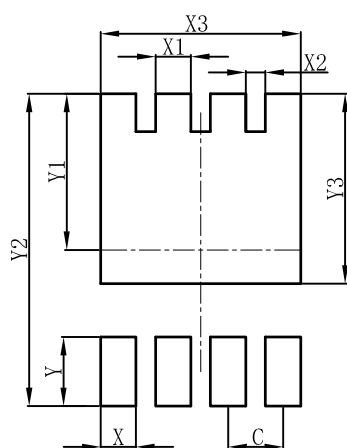


SIDE VIEW

DFN3333-8A			
DIM	MIN	NOR	MAX
A	0.60	0.65	0.70
A1	0.00	0.03	0.05
b	0.27	0.32	0.37
D	3.25	3.30	3.35
E	3.25	3.30	3.35
D1	2.22	2.27	2.32
E1	1.60	1.65	1.70
e	0.65BSC		
L	0.40	0.45	0.50
L1	0.30	0.35	0.40
A3	0.152REF.		
All Dimensions in mm			

9.SOLDERING FOOTPRINT

DFN3333-8A



DFN3333-8A	
DIM	(mm)
C	0.65
X	0.42
X1	0.42
X2	0.23
X3	2.37
Y	0.70
Y1	1.85
Y2	3.70
Y3	2.25

DISCLAIMER

- Before you use our Products, you are requested to carefully read this document and fully understand its contents. LRC shall not be in any way responsible or liable for failure, malfunction or accident arising from the use of any LRC's Products against warning, caution or note contained in this document.
- All information contained in this document is current as of the issuing date and subject to change without any prior notice. Before purchasing or using LRC's Products, please confirm the latest information with a LRC sales representative.