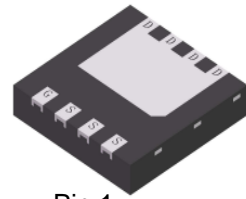


LNB8308SDT0AG

N-Channel 30-V (D-S) MOSFET



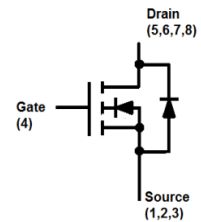
Pin 1
DFN3333-8A

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
LNB8308SDT0AG	NSF	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		40	
– Continuous TC =70°C			
Pulsed Drain Current(Note 2)	IDM	100	
Avalanched Current	IAS	20	A
Avalanche Energy VDS=24V,L=0.1mH	EAS	20	mJ
Power Dissipation	PD	19	W
TC =25°C		12	
TC =70°C			
Operating Junction and Storage Temperature Range	Tj/Tstg	-50 to 150	°C

5. THERMAL CHARACTERISTICS

Parameter	Symbol	Limits	Unit
Maximum Junction-to-Ambient(Note 1)	RθJA	60	°C/W
Maximum Junction-to-Case	RθJC	6.5	°C/W

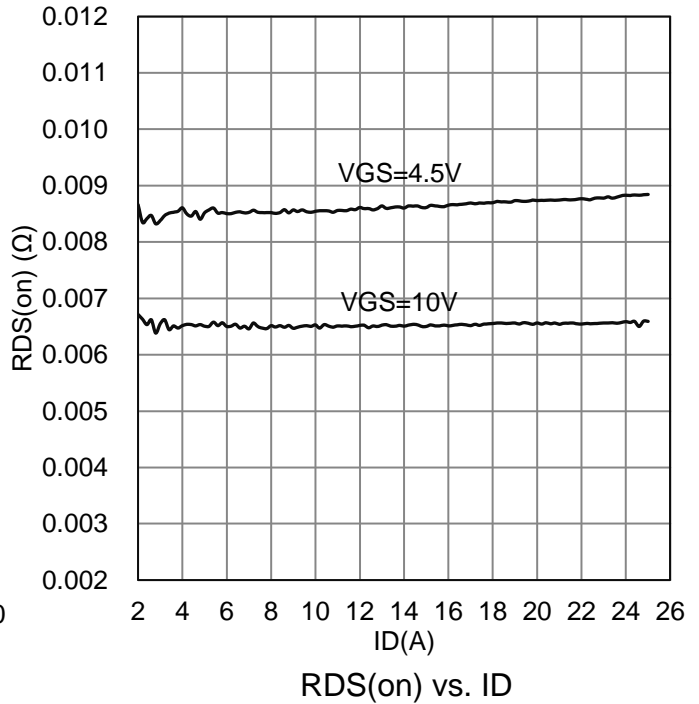
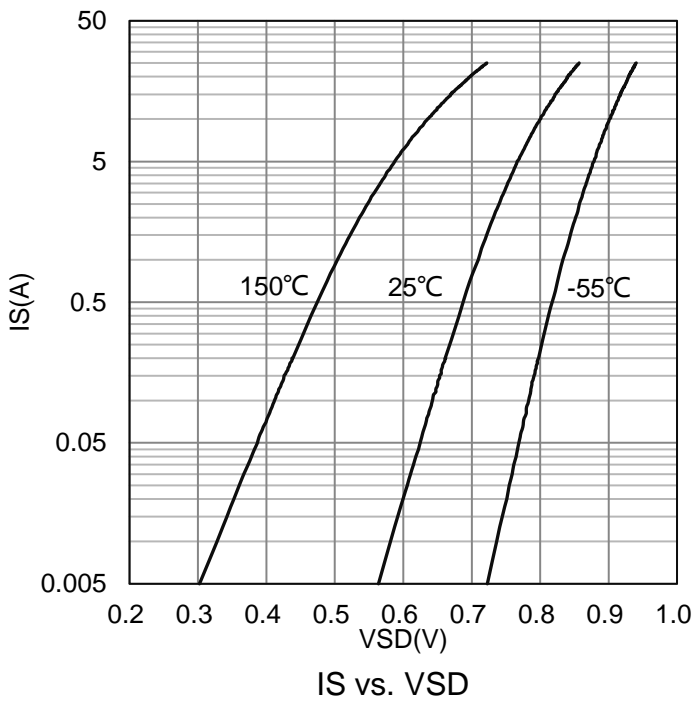
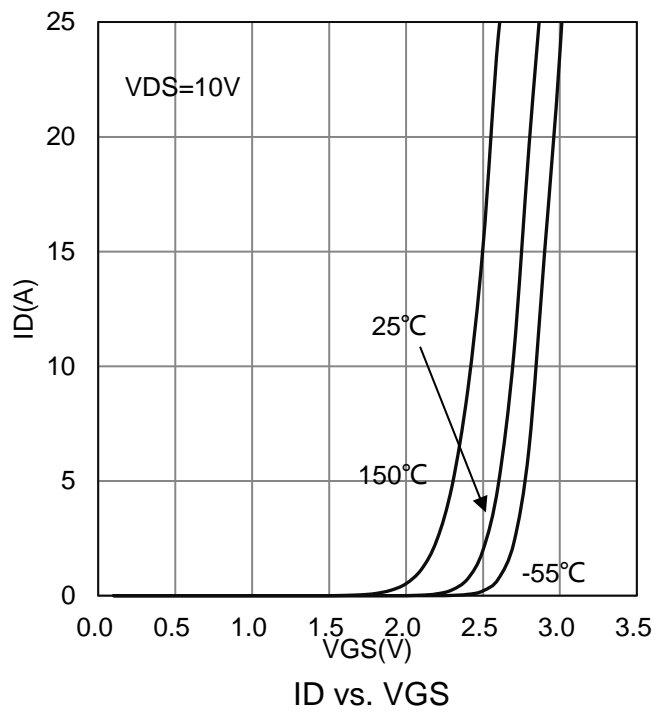
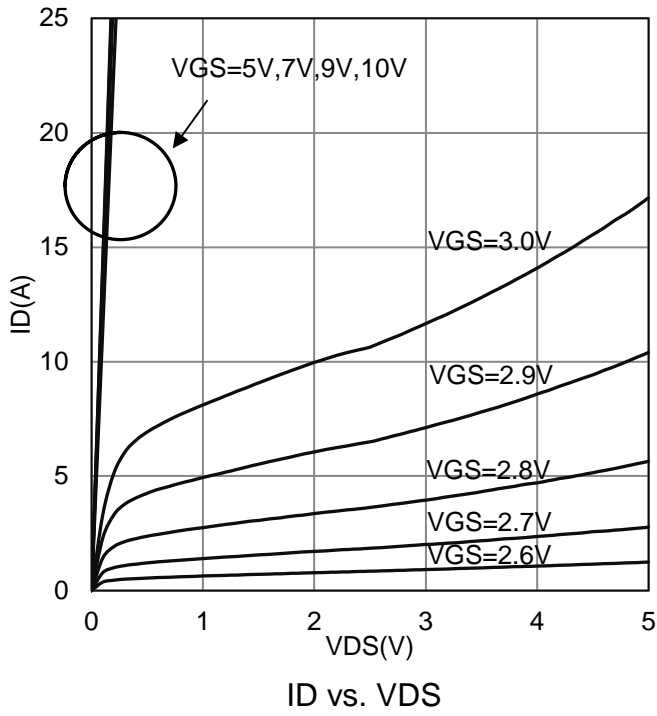
- 1.Surface mounted on "1.5 x 1.5" FR4 board using 1 sq in pad, 2 oz Cu.
- 2.Pulse width limited by maximum junction temperature.

6. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

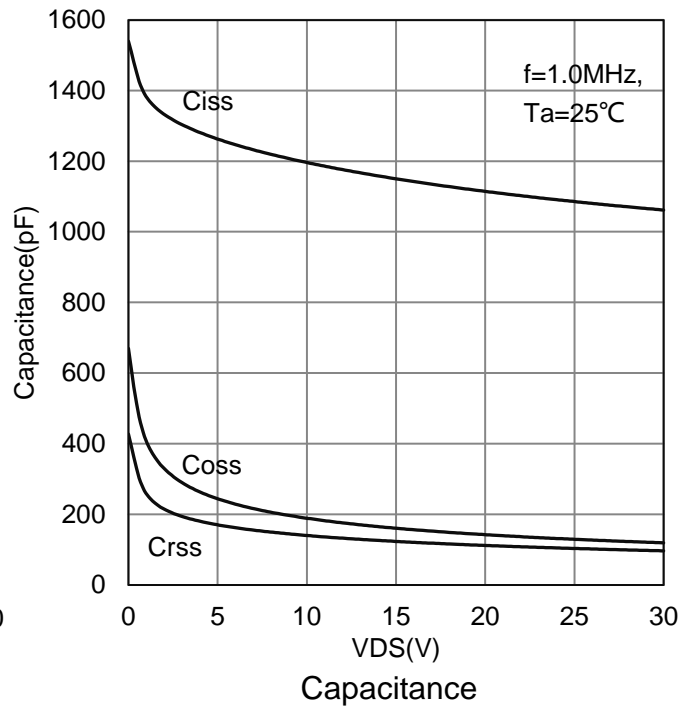
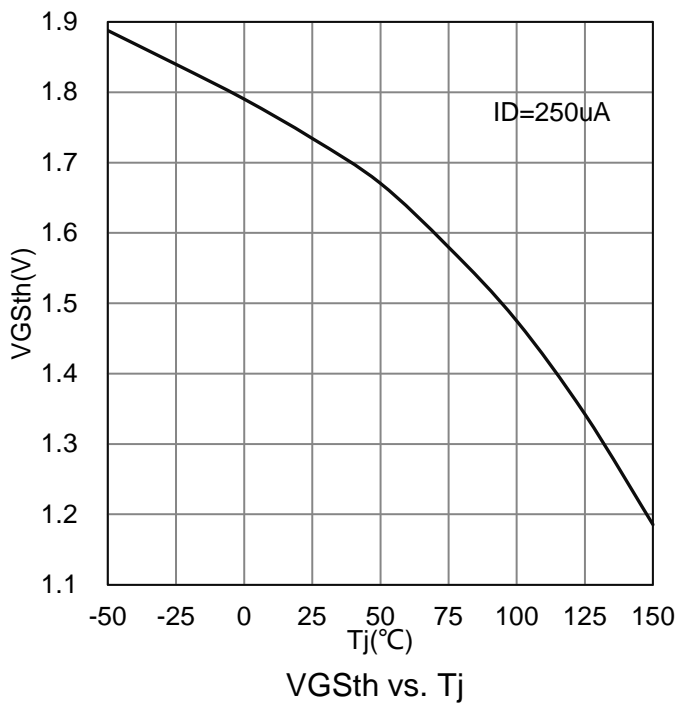
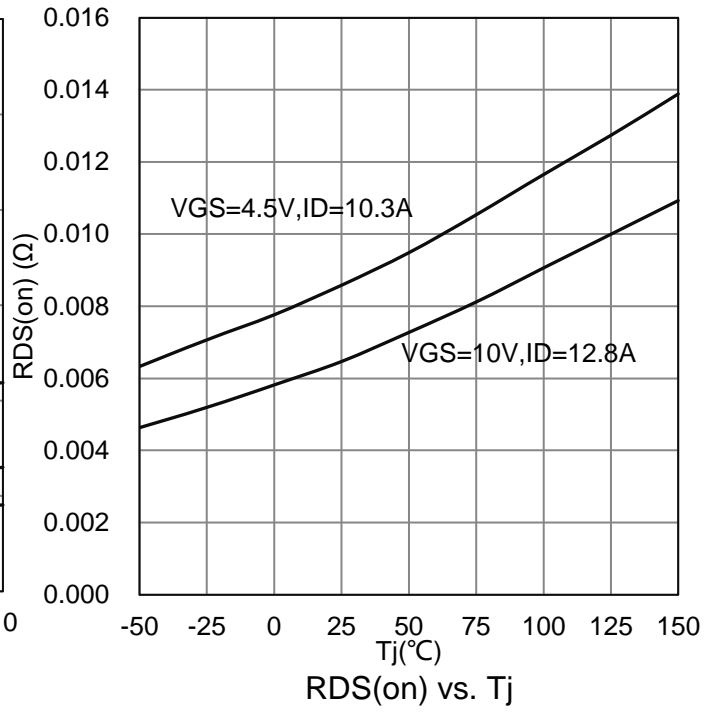
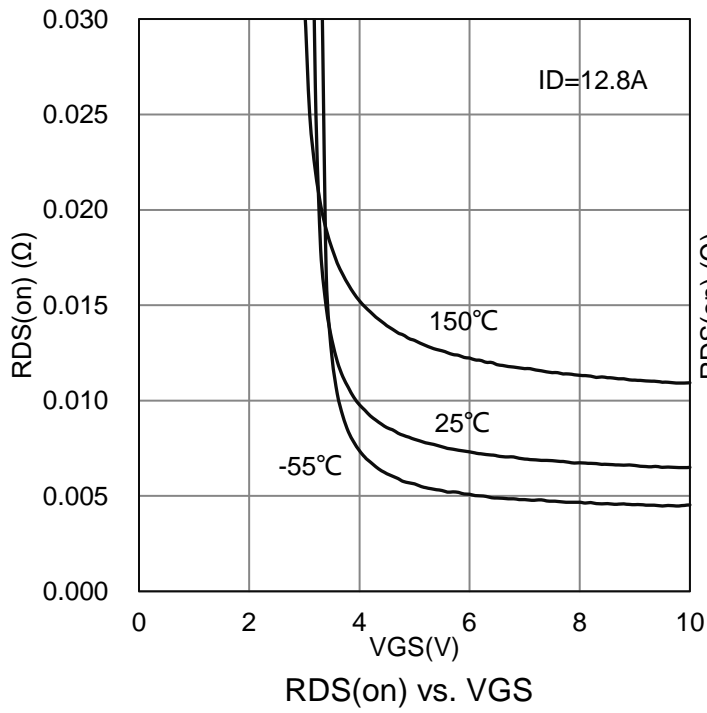
Characteristic	Symbol	Min.	Typ.	Max.	Unit	
Static						
Drain–Source Breakdown Voltage (VGS = 0, ID = 250μA)	V(BR)DSS	30	-	-	V	
Drain-Source Leakage Current (VDS = 30V, VGS = 0V)	IDSS	-	-	1	μA	
Gate–Body Leakage Current (VGS = ±20V, VDS = 0V)	IGSS	-	-	±100	nA	
Gate Threshold Voltage (VDS = VGS, ID = 250μA)	VGS(th)	1.2	-	2.2	V	
Static Drain–Source On–State Resistance(Note 3) (VGS = 10V, ID = 12.8A) (VGS = 4.5V, ID = 10.3A)	RDS(on)	- -	- -	8 13	mΩ	
Dynamic						
Input Capacitance (VGS = 0 V, f = 1.0MHz, VDS= 15 V)	Ciss	-	1150	-	pF	
Output Capacitance (VGS = 0 V, f = 1.0MHz, VDS= 15 V)	Coss	-	160	-		
Reverse Transfer Capacitance (VGS = 0 V, f = 1.0MHz, VDS= 15 V)	Crss	-	121	-		
Total Gate Charge(VGS=10V)	(VDS = 15V, VGS = 10V, ID = 12.8A)	Qg	-	20.6	-	nC
Total Gate Charge(VGS=4.5V)		Qg	-	10.3	-	
Gate-Source Charge		Qgs	-	3.5	-	
Gate-Drain Charge		Qgd	-	5	-	
Turn-On Delay Time	(VDS = 15V, ID = 12.8A, VGS = 10V, RGS = 2.7Ω)	td(on)	-	9.7	-	ns
Rise Time		tr	-	7.9	-	
Turn-Off Delay Time		td(off)	-	29.6	-	
Fall Time		tf	-	7	-	
Gate Resistance (VGS = 0V, VDS = 0V, f = 1MHz)	Rg	-	1.2	2.4	Ω	
Forward Voltage (IS = 1A, VGS = 0V)	VSD	-	0.7	1.2	V	

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

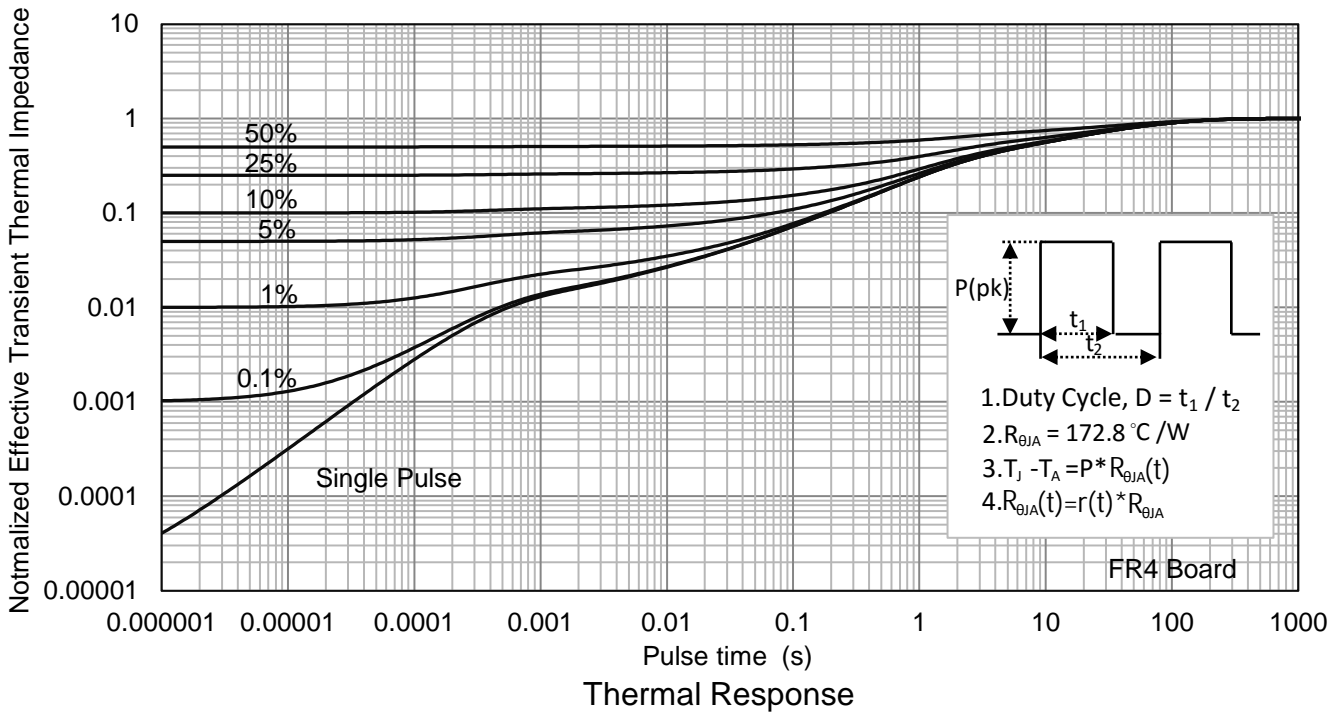
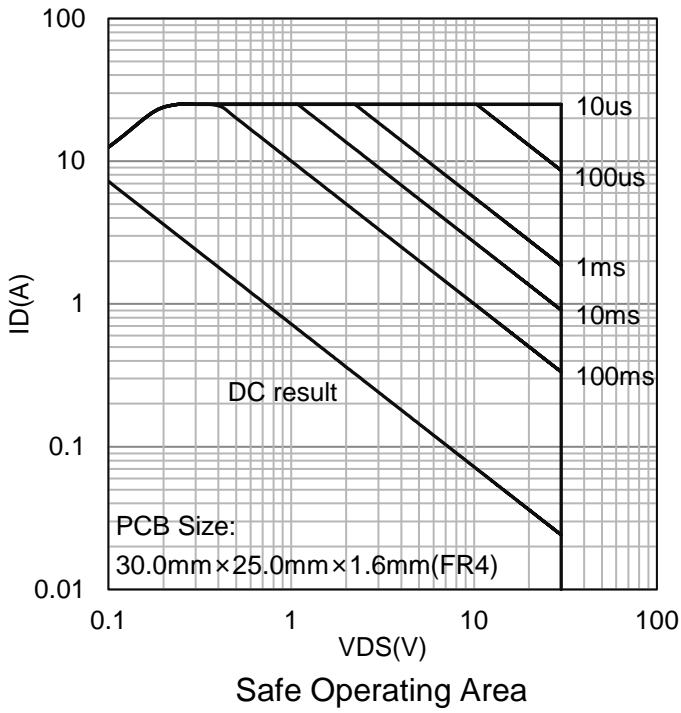
7. ELECTRICAL CHARACTERISTICS CURVES



7. ELECTRICAL CHARACTERISTICS CURVES(Con.)

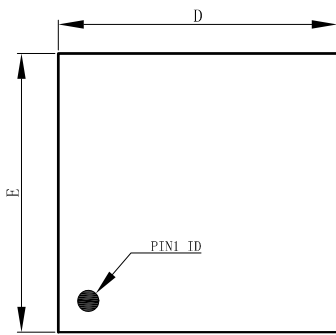


7. ELECTRICAL CHARACTERISTICS CURVES(Con.)

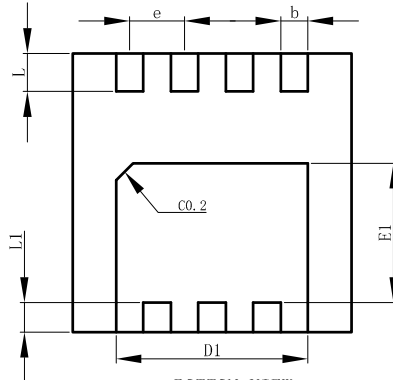


8. OUTLINE AND DIMENSIONS

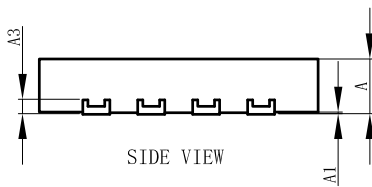
DFN3333-8A



TOP VIEW



BOTTOM VIEW

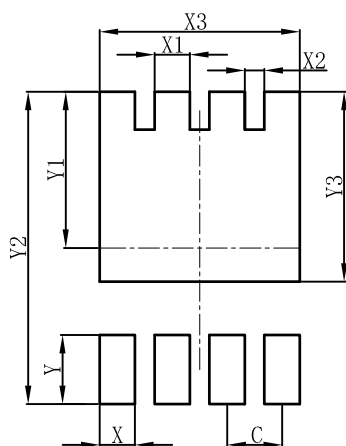


SIDE VIEW

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

- Curve guarantee in the specification. The curve of test items with electric parameter is used as quality guarantee. The curve of test items without electric parameter is used as reference only.
- Before you use our Products for new Project, 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.

单击下面可查看定价，库存，交付和生命周期等信息

[>>LRC\(乐山无线电\)](#)