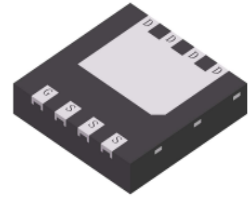


LNB8302DT0AG

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

1. FEATURES

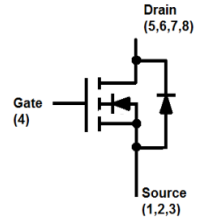
- Low RDS(on) trench technology.
- Low thermal impedance.
- Fast switching speed.
- We declare that the material of product are Halogen Free and compliance with RoHS requirements.



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2. APPLICATION

- Power Routing
- DC/DC Conversion
- Motor Drives



3. ORDERING INFORMATION

Device	Marking	Shipping
LNB8302DT0AG	S418N	2000/Tape&Reel

4. MAXIMUM RATINGS(Ta = 25°C unless otherwise stated)

Parameter		Symbol	Limits	Unit
Drain-to-Source Voltage		VDSS	30	V
Gate-to-Source Voltage		VGS	±20	V
Continuous Drain Current	TC =25°C	ID	70	A
	TC =70°C		55	
	TA =25°C		41	
	TA =70°C		33	
Pulsed Drain Current (Note 2)		IDM	200	
Avalanche Current		IAS	35	A
Avalanche energy (L=0.1mH)		EAS	61.25	mJ
Power Dissipation	TC =25°C	PD	83	W
	TC =70°C		53	
	TA =25°C		4.6	
	TA =70°C		3	
Operating Junction Temperature		TJ	-55 ~+150	°C
Storage Temperature Range		Tstg	-55 ~+150	

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.

5. THERMAL CHARACTERISTICS

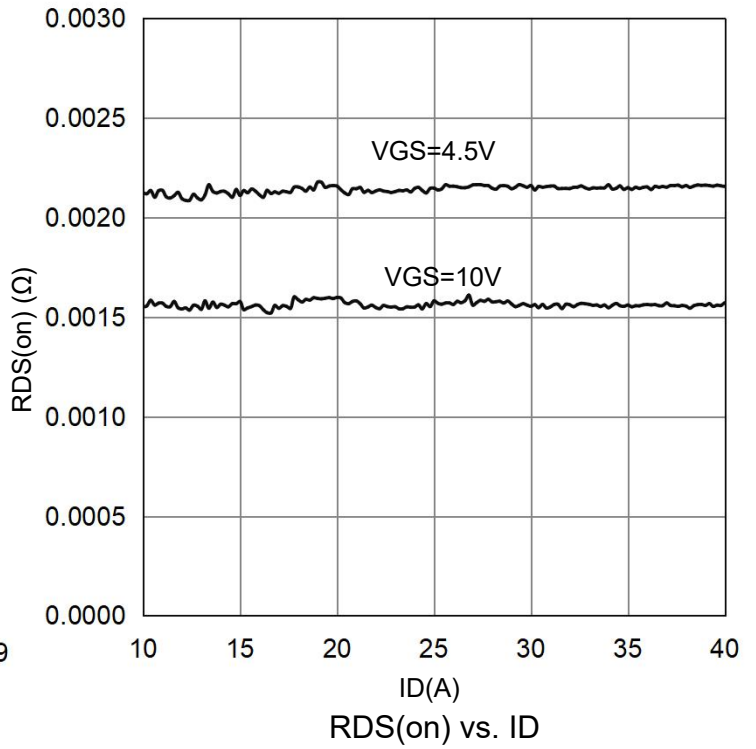
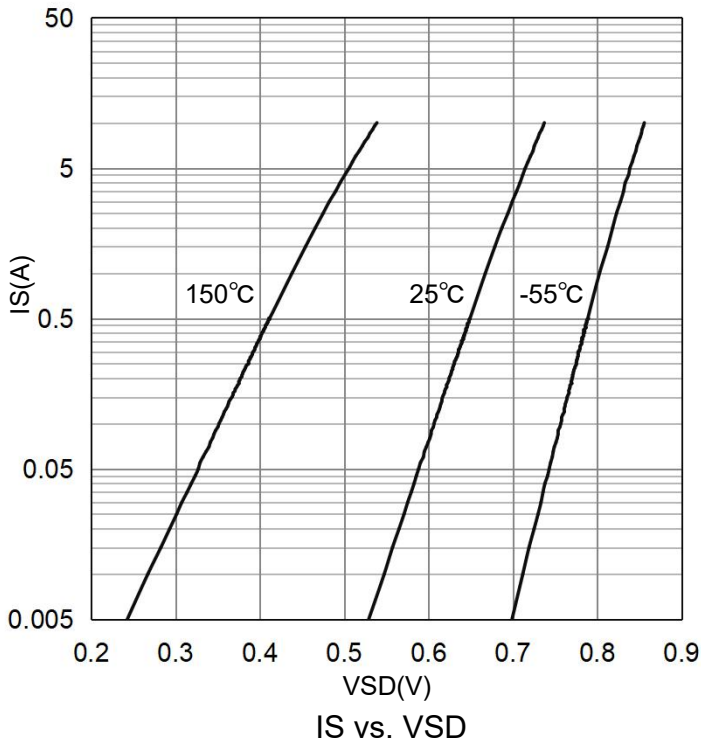
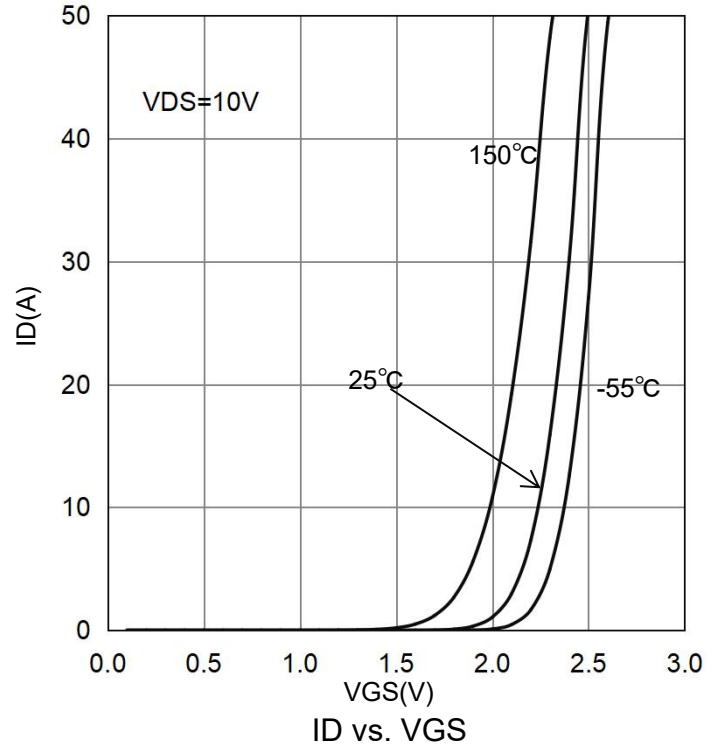
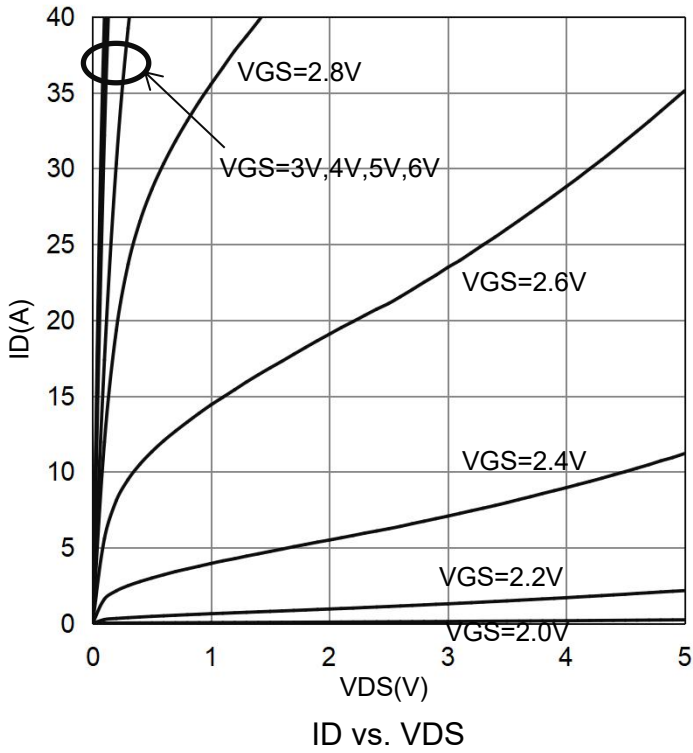
Parameter		Symbol	Limits	Unit
Maximum Junction-to-Ambient(Note 1)	t ≤10s	RθJA	35	°C/W
	Steady State		81	

6. ELECTRICAL CHARACTERISTICS

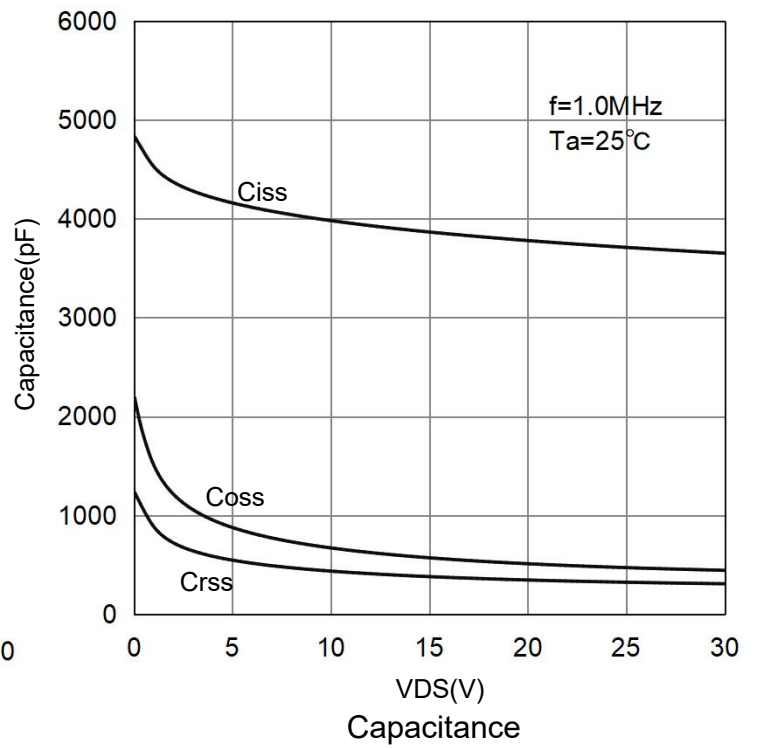
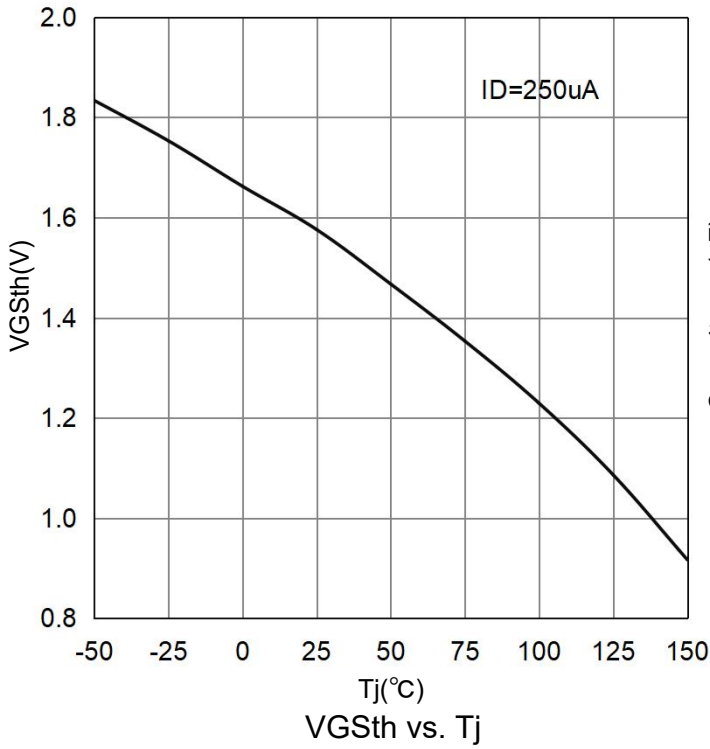
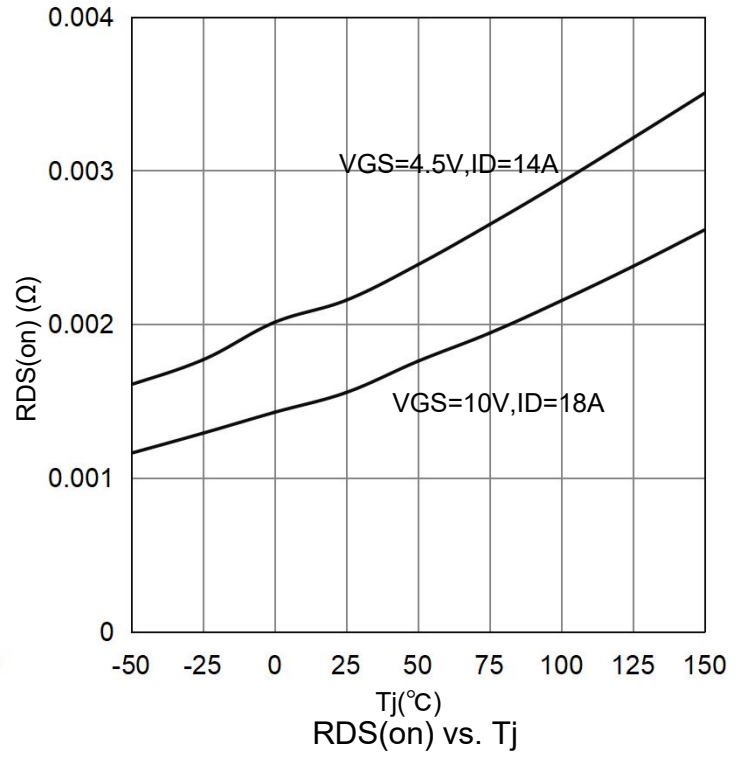
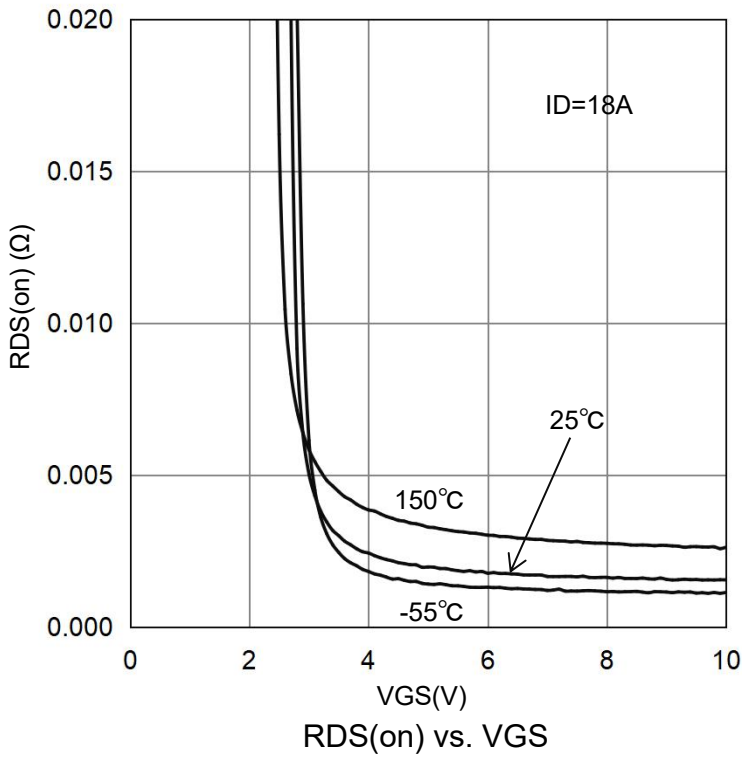
Characteristic	Symbol	Min.	Typ.	Max.	Unit	
Static						
Drain-Source Breakdown Voltage (VGS = 0 V, ID = 250 μ A)	V(BR)DSS	30	-	-	V	
Gate-Source Threshold Voltage (VDS = VGS, ID = 250 μ A)	VGS(th)	1	-	3	V	
Gate-Body Leakage (VDS = 0 V, VGS = \pm 20 V)	IGSS	-	-	\pm 100	nA	
Zero Gate Voltage Drain Current (VDS = 24 V, VGS = 0 V) (VDS = 24 V, VGS = 0 V, TJ = 55°C)	IDSS	-	-	1 10	μ A	
Drain-Source On-Resistance(Note 3) (VGS = 10 V, ID = 18 A) (VGS = 4.5 V, ID = 14 A)	RDS(on)	-	-	1.8 2.6	m Ω	
Diode Forward Voltage (IS = 3 A, VGS = 0 V)	VSD	-	-	1.2	V	
Dynamic						
Total Gate Charge	(VDS = 15 V, VGS = 4.5 V, ID = 18 A)	Qg	-	32.6	-	nC
Gate-Source Charge		Qgs	-	11.3	-	
Gate-Drain Charge		Qgd	-	10	-	
Input Capacitance	(VDS = 15 V, VGS = 0 V, f = 1 MHz)	Ciss	-	3864	-	pF
Output Capacitance		Coss	-	569.8	-	
Reverse Transfer Capacitance		Crss	-	379.6	-	
Turn-On Delay Time	(VDS = 15 V, RL = 0.83 Ω , ID = 18 A, VGEN = 10 V, RGEN = 6 Ω)	td(on)	-	8	-	ns
Rise Time		tr	-	19	-	
Turn-Off Delay Time		td(off)	-	131	-	
Fall Time		tf	-	56	-	

3. Pulse test: PW \leq 300 μ s duty cycle \leq 2%.

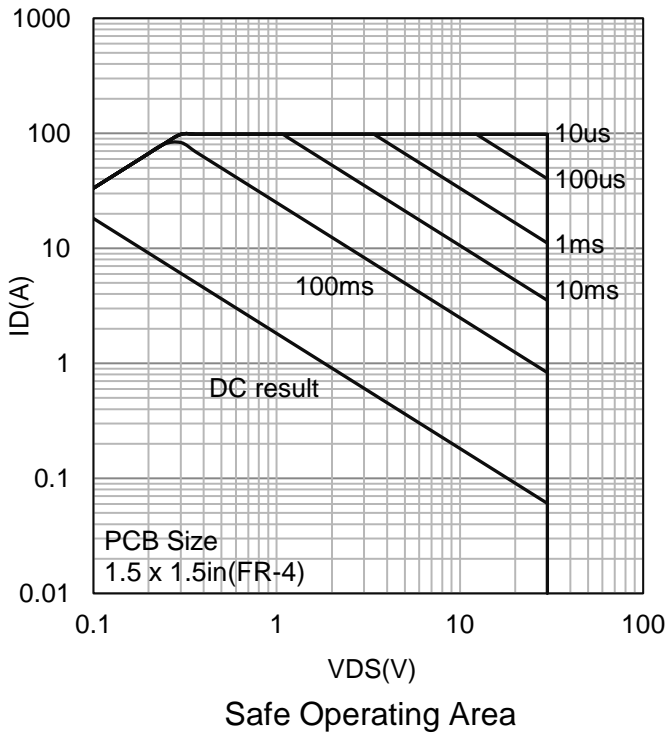
7. ELECTRICAL CHARACTERISTICS CURVES



7. ELECTRICAL CHARACTERISTICS CURVES(Con.)

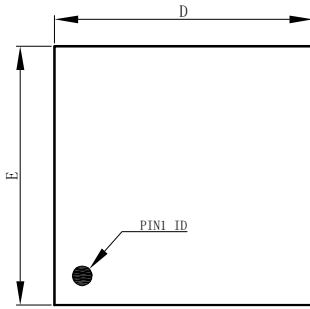


7. ELECTRICAL CHARACTERISTICS CURVES(Con.)

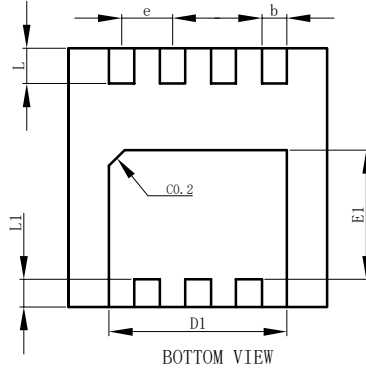


8.OUTLINE AND DIMENSIONS

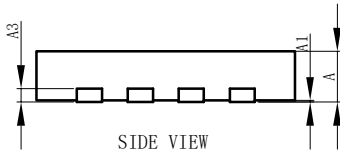
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TOP VIEW



BOTTOM VIEW

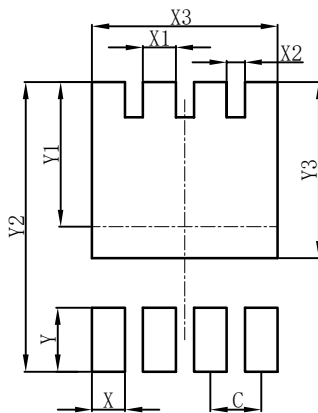


SIDE VIEW

CDFN3333-8H			
DIM	MIN	NOR	MAX
A	0.70	0.75	0.80
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	2.25	2.27	2.32
E1	1.75	1.80	1.85
e	0.65BSC		
L	0.40	0.45	0.50
L1	0.30	0.35	0.40
A3	0.203REF.		
All Dimensions in mm			

9.SOLDERING FOOTPRINT

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CDFN3333-8H	
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.
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