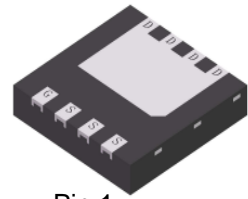


S-LNB8266DT0AG

N-Channel 60-V Power MOSFET



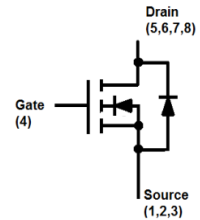
Pin 1
DFN3333-8A

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.
- S-prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable.

2. APPLICATION

- White LED boost converters
- Automotive Systems
- Industrial DC/DC Conversion Circuits



3. ORDERING INFORMATION

Device	Marking	Shipping
S-LNB8266DT0AG	N66	2000/Tape&Reel

4. MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limit	Units	
Drain-Source Voltage	VDS	60	V	
Gate-Source Voltage	VGS	±20		
Continuous Drain Current (Note 1)	ID	TA = 25°C	7	A
		TA = 70°C	6	
Pulsed Drain Current (Note 2)	IDM	28		
Continuous Drain Current	ID	TC = 25°C	32	A
		TC = 70°C	26	
Pulsed Drain Current	IDM	128		
Continuous Source Current (Diode Conduction)(Note 1)	IS	7	A	
Power Dissipation(Note 1)	PD	TA = 25°C	2	W
		TA = 70°C	1.3	
Power Dissipation	PD	TC = 25°C	41	W
		TC = 70°C	26	
Operating Junction and Storage Temperature Range	TJ, Tstg	-55 to 150	°C	

5. THERMAL CHARACTERISTICS

Parameter	Symbol	Maximum	Units
Maximum Junction-to-Ambient(Note 1)	RθJA	60	°C/W
Maximum Junction-to-Ambient(Note 3)	RθJA	172	
Maximum Junction-to-Case	RθJC	3	

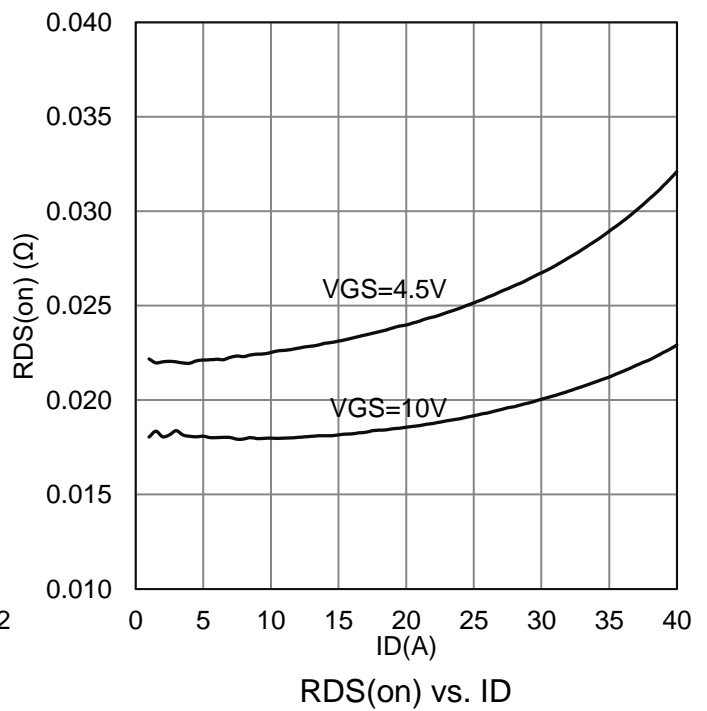
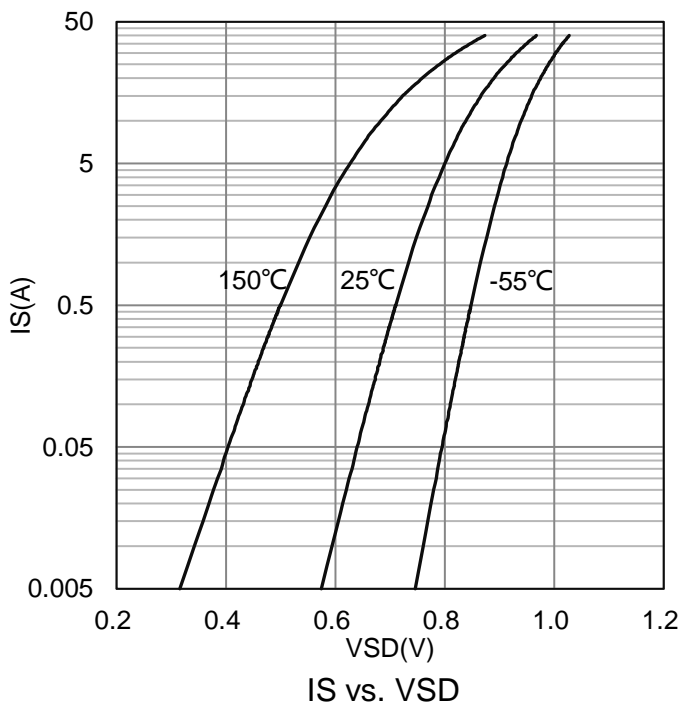
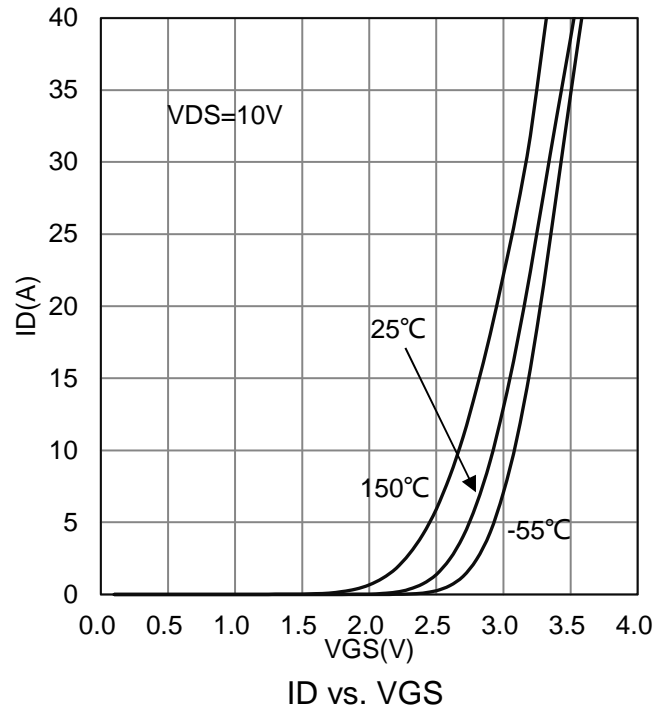
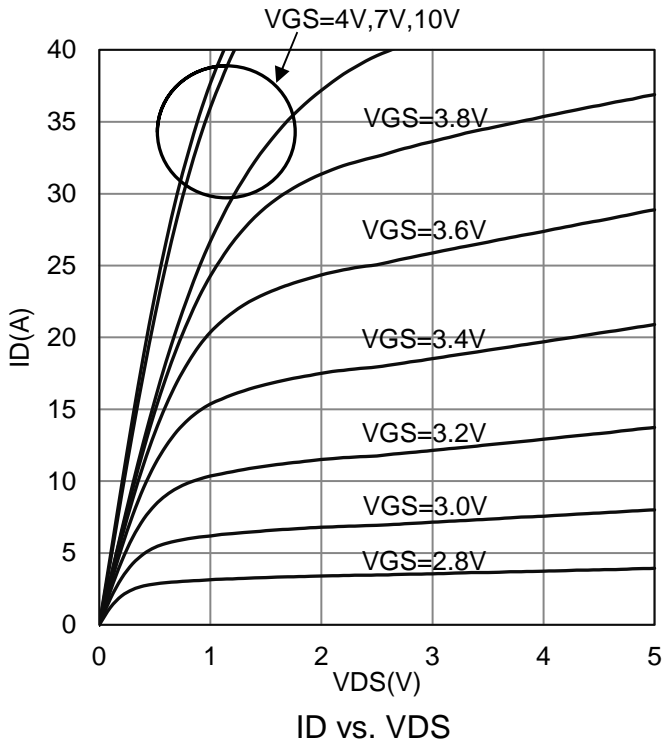
- 1.Surface mounted on "1.5 x 1.5" FR4 board using 1 sq in pad, 2 oz Cu.
- 2.Pulse width limited by maximum junction temperature.
- 3.Surface mounted on FR4 board using the recommended pad size.

6. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

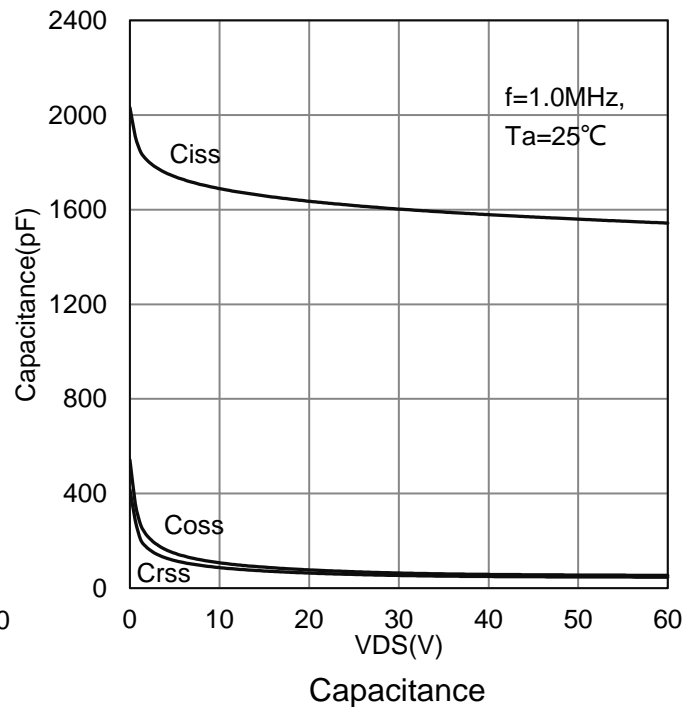
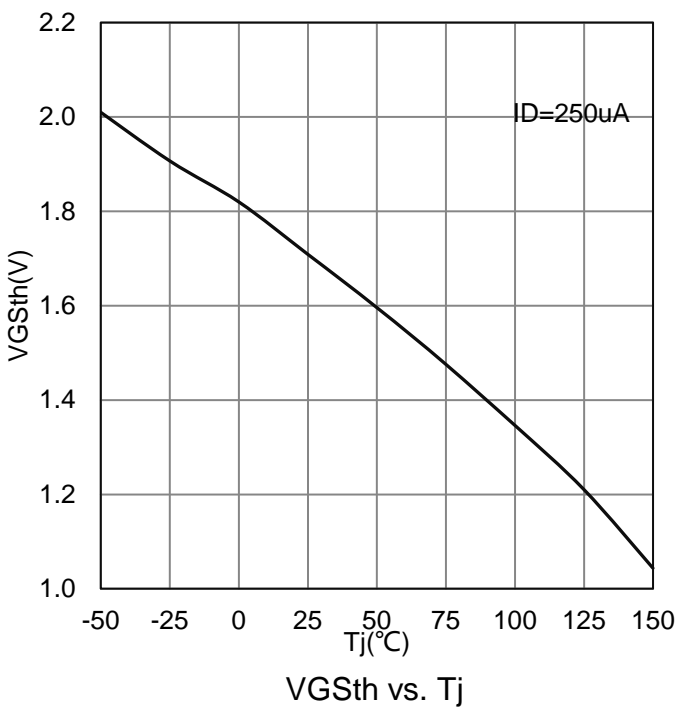
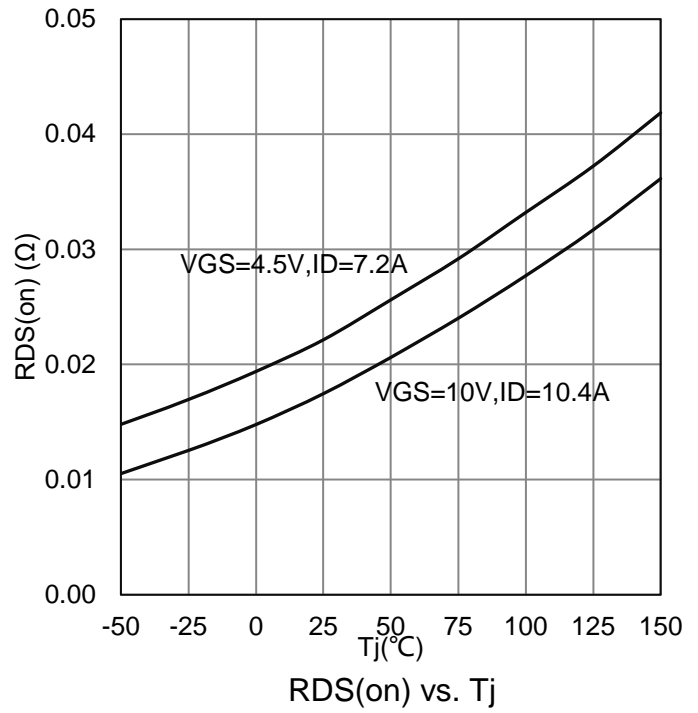
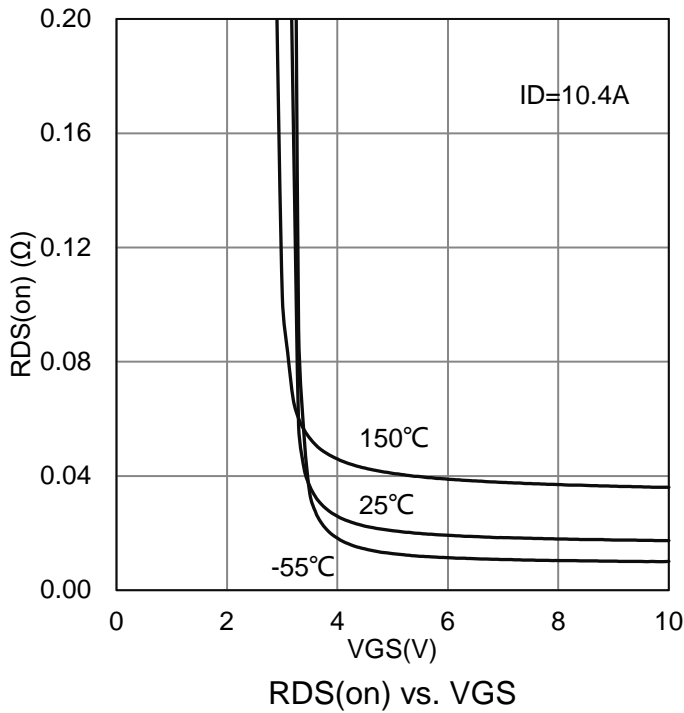
Characteristic	Symbol	Min.	Typ.	Max.	Unit	
Static						
Drain–Source Breakdown Voltage (VGS = 0 V, ID = 250 μA)	V(BR)DSS	60	-	-	V	
Gate Threshold Voltage (VDS = VGS, ID = 250 μA)	VGS(th)	1	-	-	V	
Gate Body Leakage (VDS = 0 V, VGS = ±20 V)	IGSS	-	-	±10	μA	
Zero Gate Voltage Drain Current (VDS = 48 V, VGS = 0 V)	IDSS	-	-	1	μA	
Static Drain–Source On–State Resistance(Note 4) (VGS = 10 V, ID = 10.4 A) (VGS = 4.5 V, ID = 7.2 A)	RDS(on)	-	16.5 20.5	20 24	mΩ	
Diode Forward Voltage (IS = 2.3 A, VGS = 0 V)	VSD	-	0.7	1.2	V	
Dynamic						
Total Gate Charge	(VDS = 30 V, VGS = 4.5 V, ID = 10.4 A)	Qg	-	12.7	-	nC
Gate-Source Charge		Qgs	-	4.8	-	
Gate-Drain Charge		Qgd	-	4.5	-	
Input capacitance	(VDS = 15 V, VGS = 0 V, f = 1 MHz)	Ciss	-	1650	-	pF
Output Capacitance		Coss	-	89	-	
Reverse Transfer Capacitance		Crss	-	74	-	
Turn-On Delay Time	(VDS= 30 V,RL = 2.9 Ω, ID = 10.4 A, VGEN = 10 V, RG = 6Ω)	td(on)	-	10	-	ns
Turn-On Rise Time		tr	-	24	-	
Turn-Off Delay Time		td(off)	-	67	-	
Turn-Off Fall Time		tf	-	37	-	

4. Pulse test; pulse width ≤ 300 μs, duty cycle ≤ 2%.

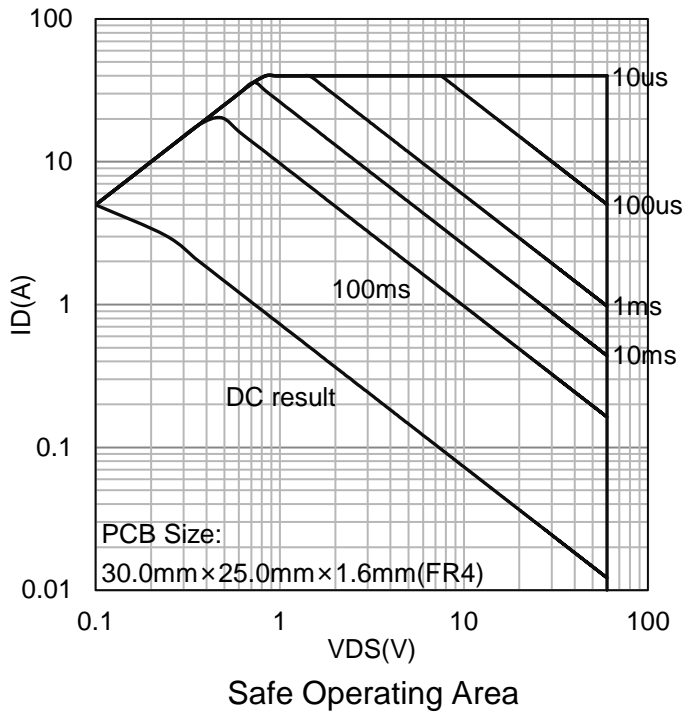
7. ELECTRICAL CHARACTERISTICS CURVES



7. ELECTRICAL CHARACTERISTICS CURVES(Con.)

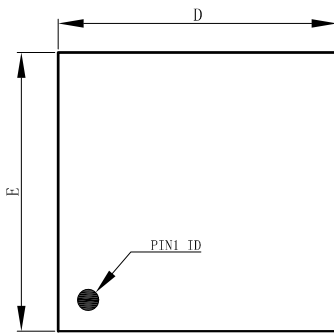


7. ELECTRICAL CHARACTERISTICS CURVES(Con.)

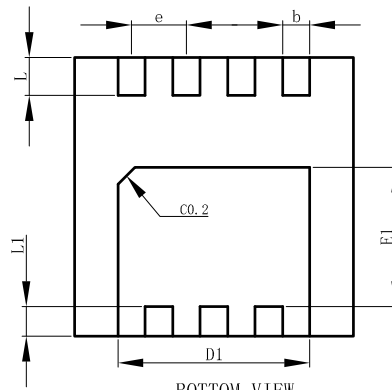


8. OUTLINE AND DIMENSIONS

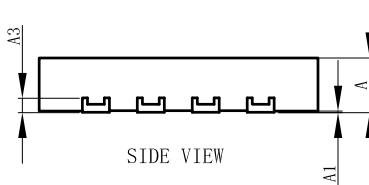
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TOP VIEW



BOTTOM VIEW

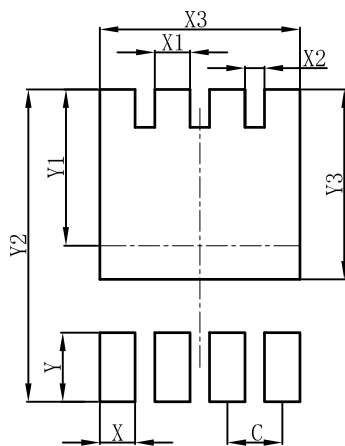


SIDE VIEW

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.
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