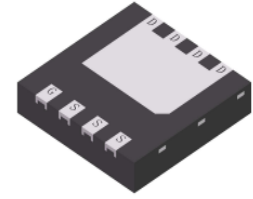


# S-LNB8266DT0AG

## N-Channel 60-V Power MOSFET



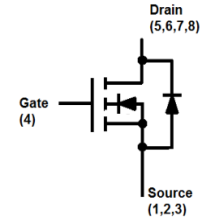
DFN3333-8A

### 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	9	A
		TA=70°C	7	
Pulsed Drain Current (Note 2)	IDM	40		
Continuous Source Current (Diode Conduction)(Note 1)	IS	4.6	A	
Power Dissipation(Note 1)	PD	TA =25°C	5	W
		TA=70°C	3.2	
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)	R <sub>θJA</sub>	t ≤ 10sec	39	°C/W
		Steady State	85	

- 1.Surface Mounted on 1" x 1" FR4 Board.
- 2.Pulse width limited by maximum junction temperature

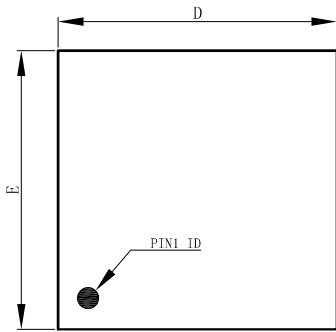
## 6. ELECTRICAL CHARACTERISTICS CURVES

Characteristic	Symbol	Min.	Typ.	Max.	Unit
<b>Static</b>					
Drain–Source Breakdown Voltage (VGS = 0, ID = 250μA)	V(BR)DSS	60	-	-	V
Gate Threshold Voltage (VDS = VGS, ID = 250μA)	VGS(th)	1	-	-	V
Gate Body Leakage (VDS = 0V, VGS = ±20V)	IGSS	-	-	±10	μA
Zero Gate Voltage Drain Current (VDS = 48V, VGS = 0V) (VDS = 48V, VGS = 0V, TJ = 55°C)	IDSS	-	-	1 25	μA
Static Drain–Source On–State Resistance (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	-	V
<b>Dynamic</b>					
Total Gate Charge	(VDS = 30 V, VGS = 4.5 V, ID = 10.4 A)	Qg	-	20	nC
Gate–Source Charge		Qgs	-	5.8	
Gate–Drain Charge		Qgd	-	10	
Input capacitance	(VDS = 15 V, VGS = 0 V, f = 1 MHz)	Ciss	-	2086	pF
Output Capacitance		Coss	-	174	
Reverse Transfer Capacitance		Crss	-	160	
Turn-On Delay Time	(VDS=30 V, RL=2.9 Ω, ID=10.4A, VG EN=10V, RG=6 Ω)	td(on)	-	10	ns
Turn-On Rise Time		tr	-	24	
Turn-Off Delay Time		td(off)	-	67	
Turn-Off Fall Time		tf	-	37	

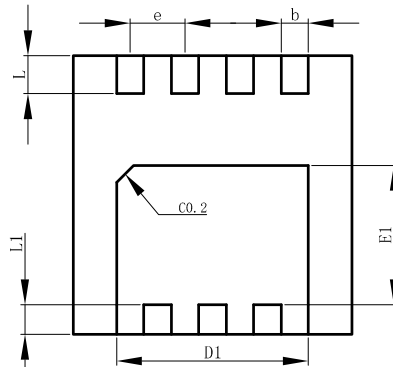
3. Pulse test; pulse width ≤ 300μs, duty cycle ≤ 2%.

4. Guaranteed by design, not subject to production testing.

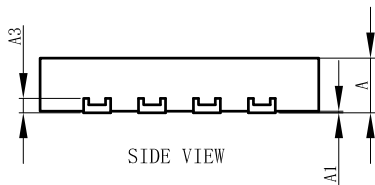
**7.OUTLINE AND DIMENSIONS**



TOP VIEW



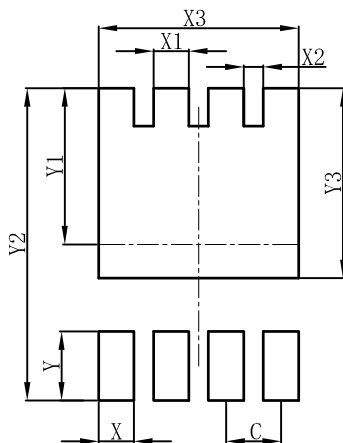
BOTTOM VIEW



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			

**8.SOLDERING FOOTPRINT**



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