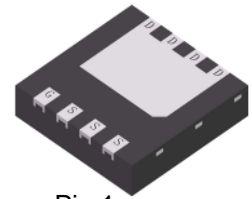


S-LNB8510DT0AG

60V N-Channel MOSFET



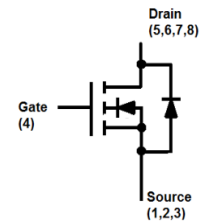
Pin 1
DFN3333-8A

1. FEATURES

- Improved dv/dt capability
- Fast switching
- 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. APPLICATIONS

- Motor Drive
- Power Tools
- LED Lighting
- Quick Charger



3. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
S-LNB8510DT0AG	A10	2000/Tape&Reel

4. MAXIMUM RATINGS

Parameter	Symbol	Limits	Unit
Drain-Source Voltage	VDSS	60	V
Gate-to-Source Voltage – Continuous	VGS	±20	V
Drain Current	ID	11	A
– Continuous TA =25°C		8.7	
– Continuous TA =70°C			
Pulsed Drain Current TA =25°C	IDM	44	
Drain Current	ID	38	A
– Continuous TC =25°C		30	
– Continuous TC =70°C			
Pulsed Drain Current TC =25°C	IDM	152	
Avalanche Current	IAS	18	A
Avalanche Energy(L=0.1mH)	EAS	16.2	mJ
Power Dissipation	PD	2.1	W
TA=25°C		25	
TC=25°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	5	°C/W

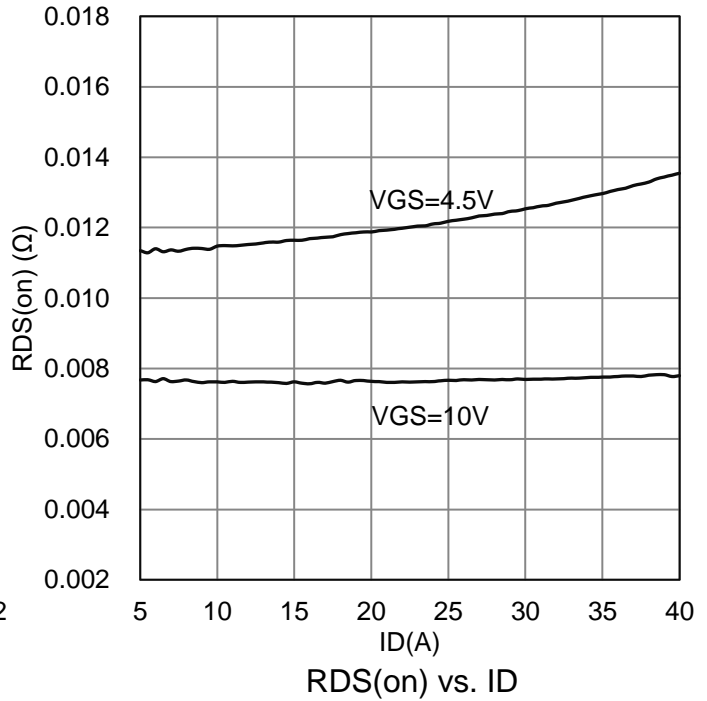
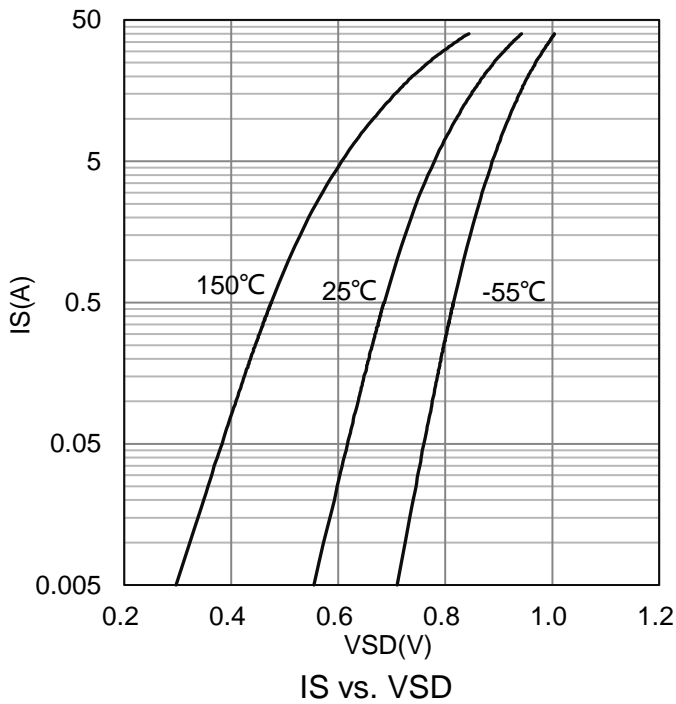
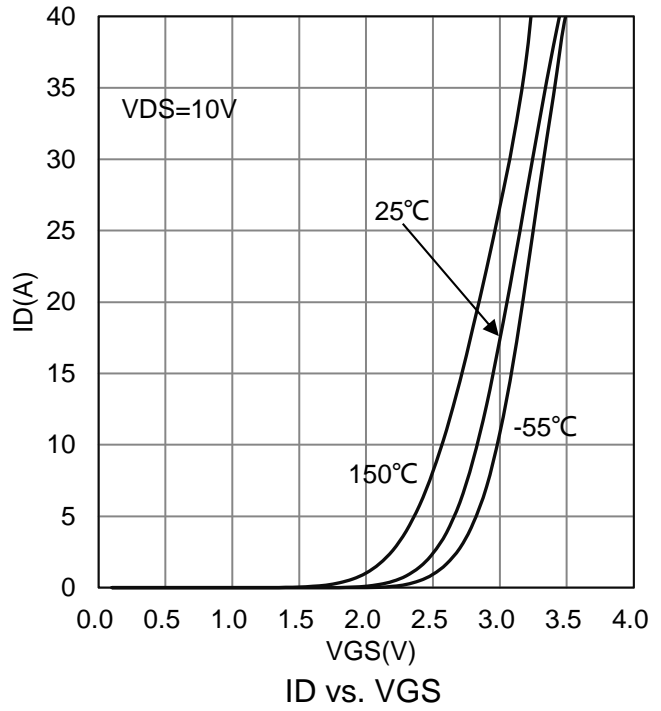
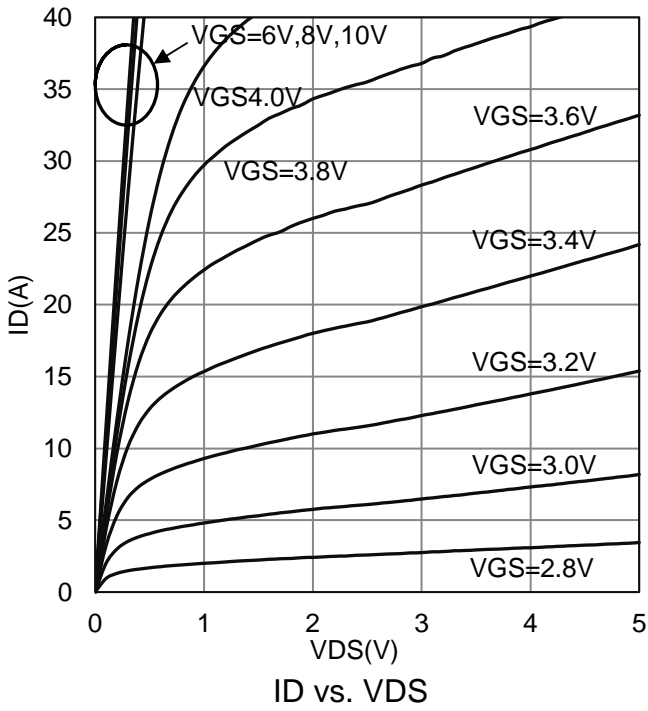
1.Surface mounted on "1.5 x 1.5" FR4 board using 1 sq in pad, 2 oz Cu

6. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

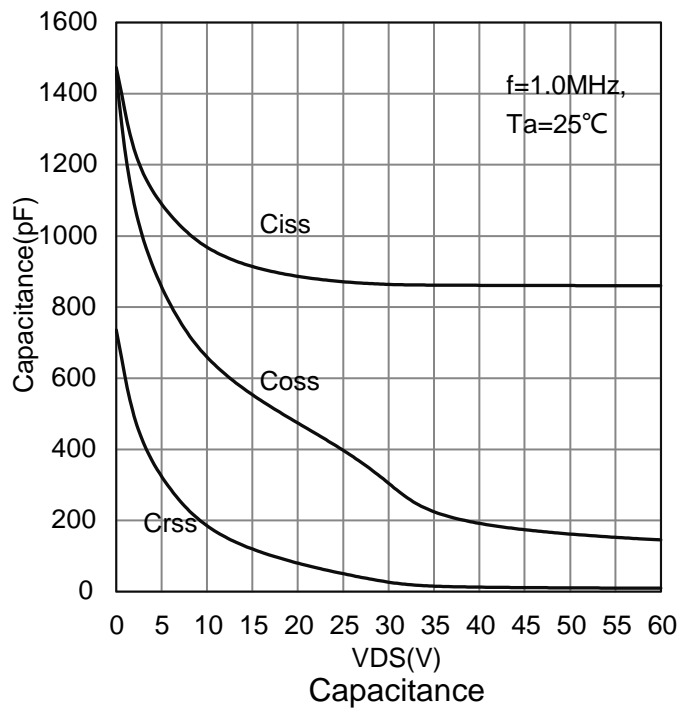
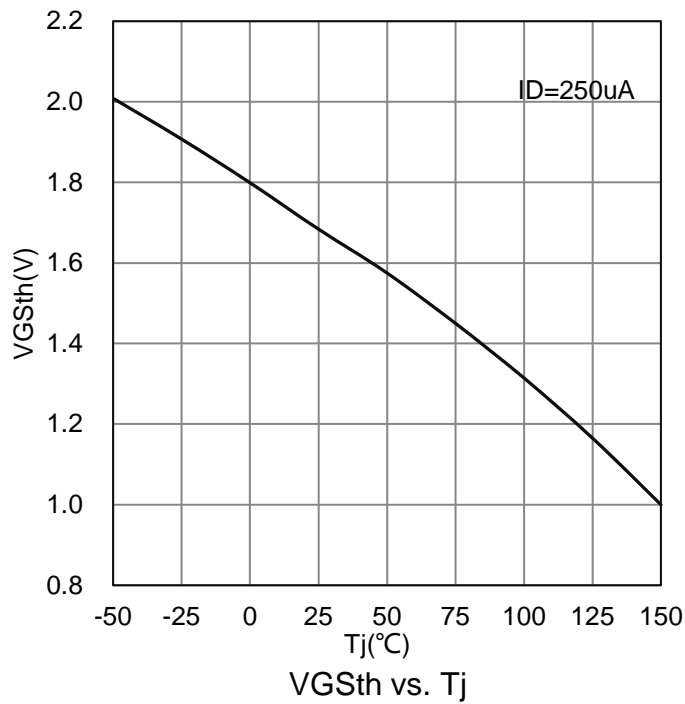
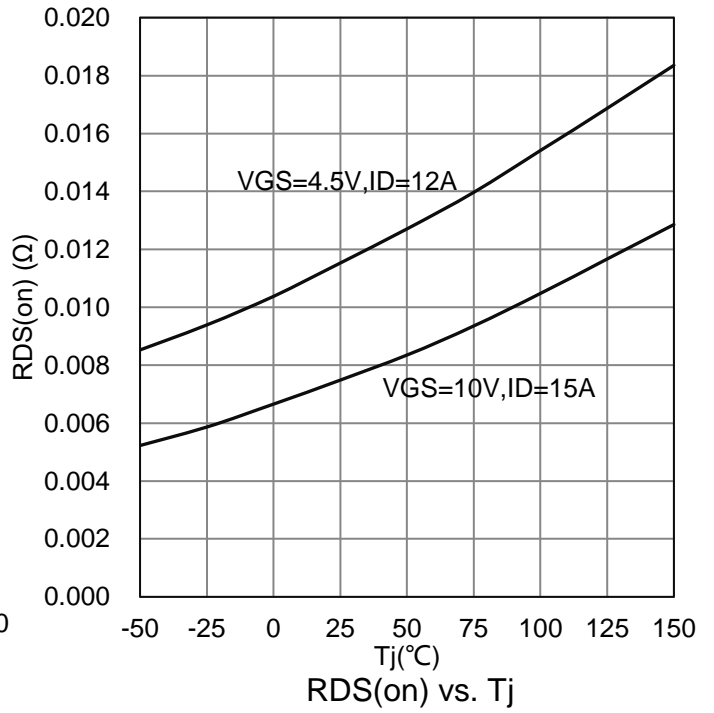
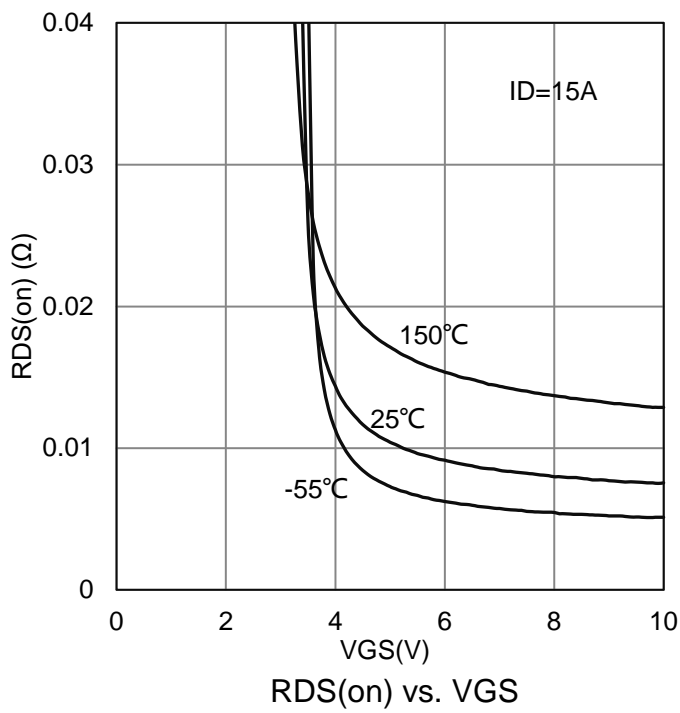
Characteristic	Symbol	Min.	Typ.	Max.	Unit
Static					
Drain-Source Breakdown Voltage (VGS = 0 V, ID = 250 μA)	V(BR)DSS	60	-	-	V
Drain-Source Leakage Current (VDS = 60 V, VGS = 0 V)	IDSS	-	-	1	μA
Gate-Body Leakage Current (VGS = ±20 V, VDS = 0 V)	IGSS	-	-	±100	nA
Gate Threshold Voltage (VDS = VGS, ID = 250 μA)	VGS(th)	1.2	1.6	2.5	V
Static Drain-Source On-State Resistance (VGS = 10 V, ID = 15 A) (VGS = 4.5 V, ID = 12 A)	RDS(on)	- -	- -	9.5 14	mΩ
Dynamic					
Input Capacitance (VGS = 0 V, f = 1.0MHz, VDS= 30 V)	Ciss	-	864	-	pF
Output Capacitance (VGS = 0 V, f = 1.0MHz, VDS= 30 V)	Coss	-	305	-	
Reverse Transfer Capacitance (VGS = 0 V, f = 1.0MHz, VDS= 30 V)	Crss	-	27	-	
Total Gate Charge	(VDS = 30 V, VGS = 10 V, ID = 15 A)	Qg	-	22	nC
Gate-Source Charge		Qgs	-	2.3	
Gate-Drain Charge		Qgd	-	8	
Turn-On Delay Time	(VDD = 30 V, VGS = 10 V, RG = 3.3 Ω, ID = 1 A)	td(on)	-	10	ns
Rise Time		tr	-	13.5	
Turn-Off Delay Time		td(off)	-	28	
Fall Time		tf	-	26	
Forward Voltage (VGS = 0 V, IS = 1 A)	VSD	-	-	1	V

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

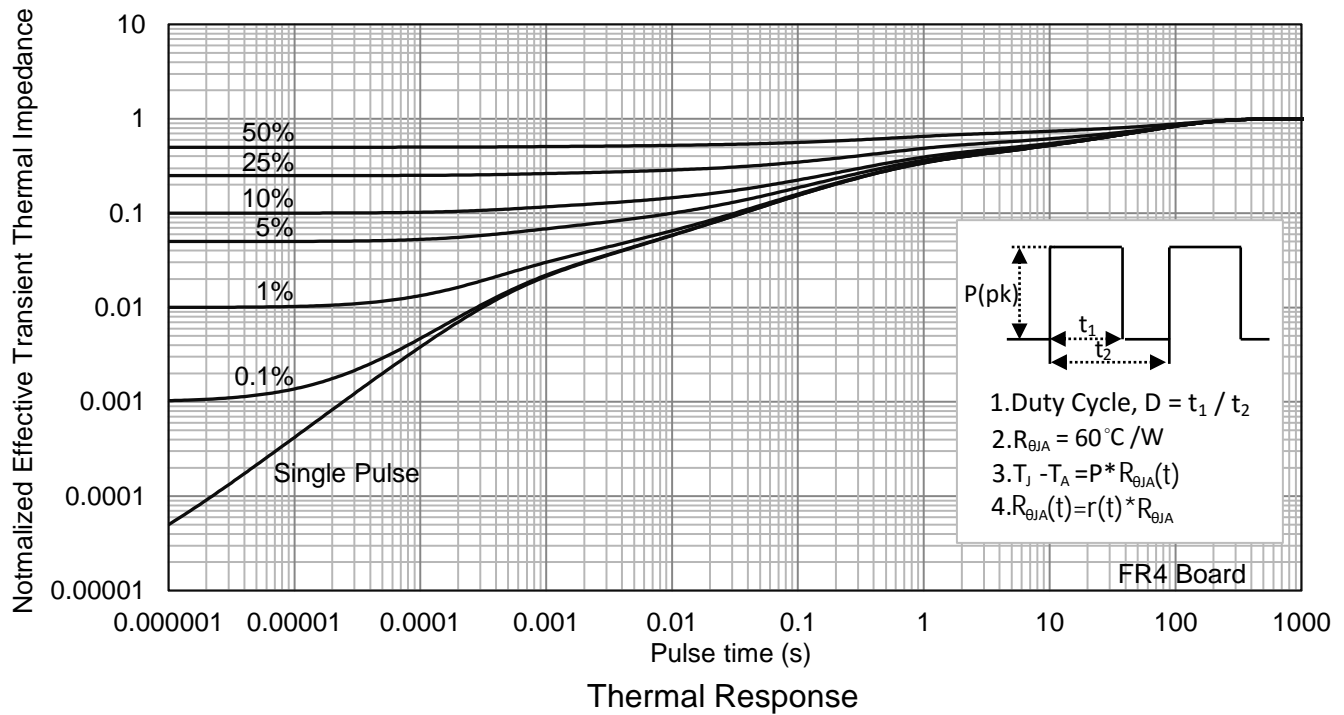
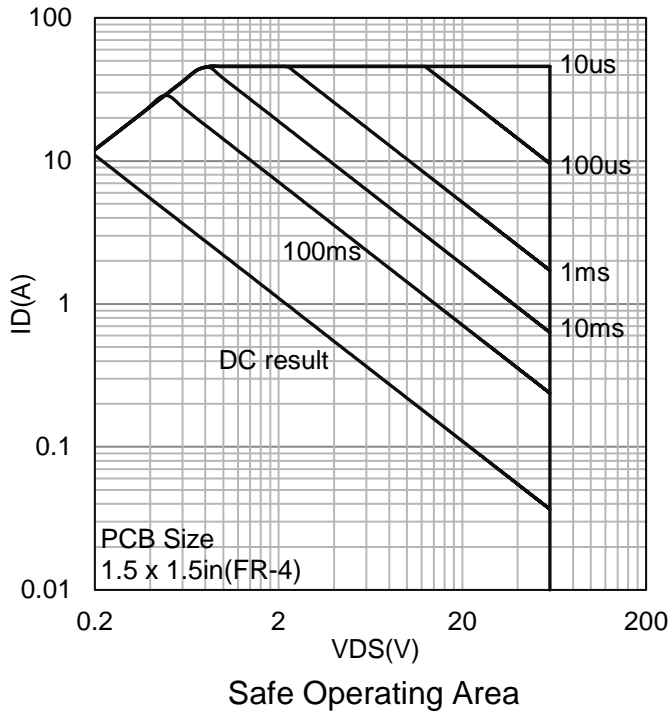
7. ELECTRICAL CHARACTERISTICS CURVES



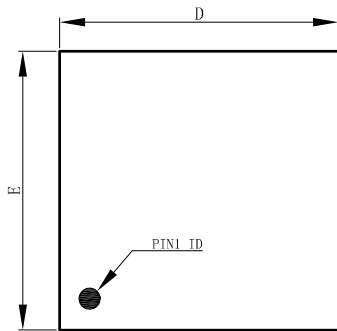
7. ELECTRICAL CHARACTERISTICS CURVES(Con.)



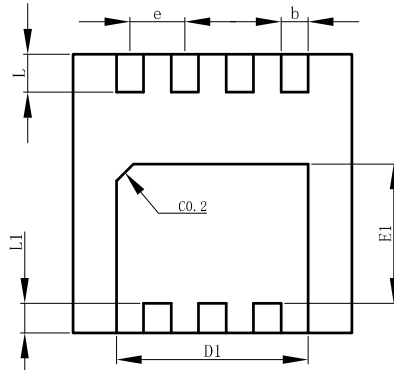
7. ELECTRICAL CHARACTERISTICS CURVES(Con.)



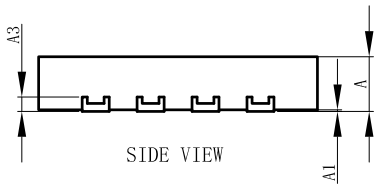
8. OUTLINE AND DIMENSIONS



TOP VIEW



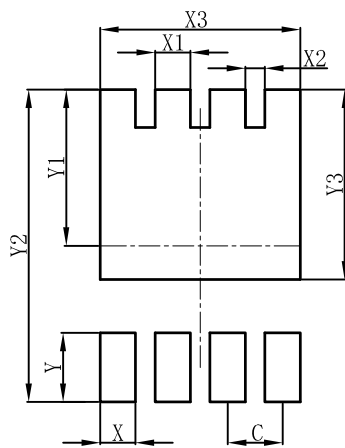
BOTTOM VIEW



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	
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\(乐山无线电\)](#)