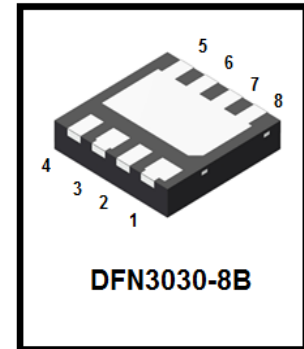


S-LN8418DT1AG

N-Channel 40-V (D-S) MOSFET

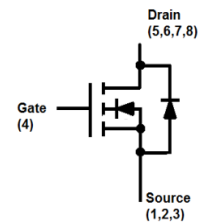
1. FEATURES

- 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.
- 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
- DC/DC Conversion
- Motor Drives



3. ORDERING INFORMATION

Device	Marking	Shipping
S-LN8418DT1AG	P18	3000/Tape&Reel

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

Parameter		Symbol	Limits	Unit
Drain-to-Source Voltage		VDSS	40	V
Gate-to-Source Voltage		VGS	±20	V
Continuous Drain Current(Note 1)	TA =25°C	ID	14	A
	TA =70°C		12	
Pulsed Drain Current (Note 2)		IDM	50	
Continuous Source Current (Diode Conduction)(Note 1)		IS	4.6	
Avalanche Current (L = 0.1mH)		IAS	19	A
Avalanche Energy (L = 0.1mH)		EAS	18	mJ
Power Dissipation(Note 1)	TA =25°C	PD	3	W
	TA =70°C		1.6	
Operating Junction and Storage Temperature Range		TJ/Tstg	-55 ~+150	°C

1.Surface Mounted on 1" x 1" FR4 Board.

2.Pulse width limited by maximum junction temperature

5. THERMAL CHARACTERISTICS

Parameter		Symbol	Limits	Unit
Maximum Junction-to-Ambient(Note 1)	t ≤10 sec	RθJA	40	°C/W
	Steady State		80	

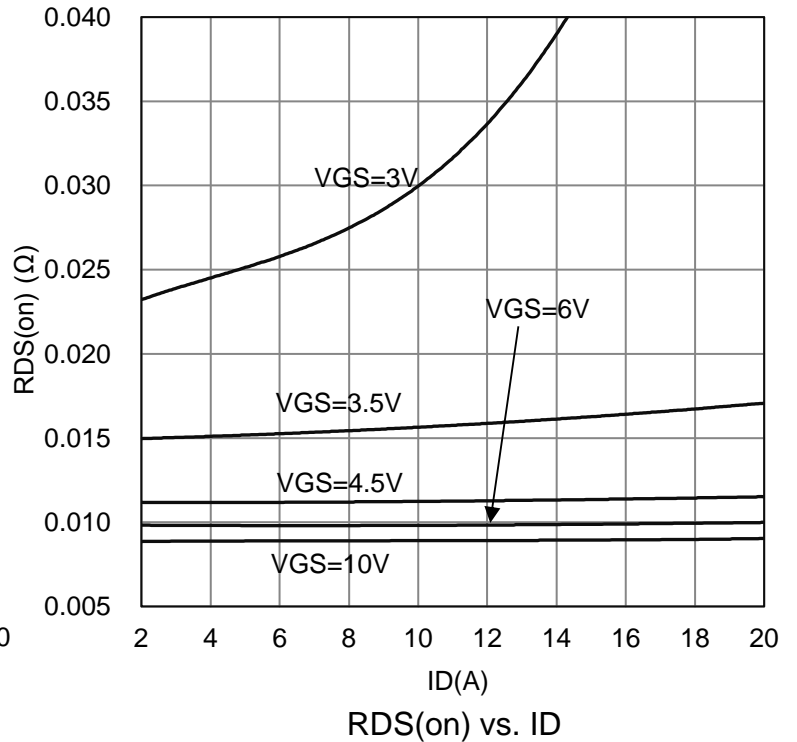
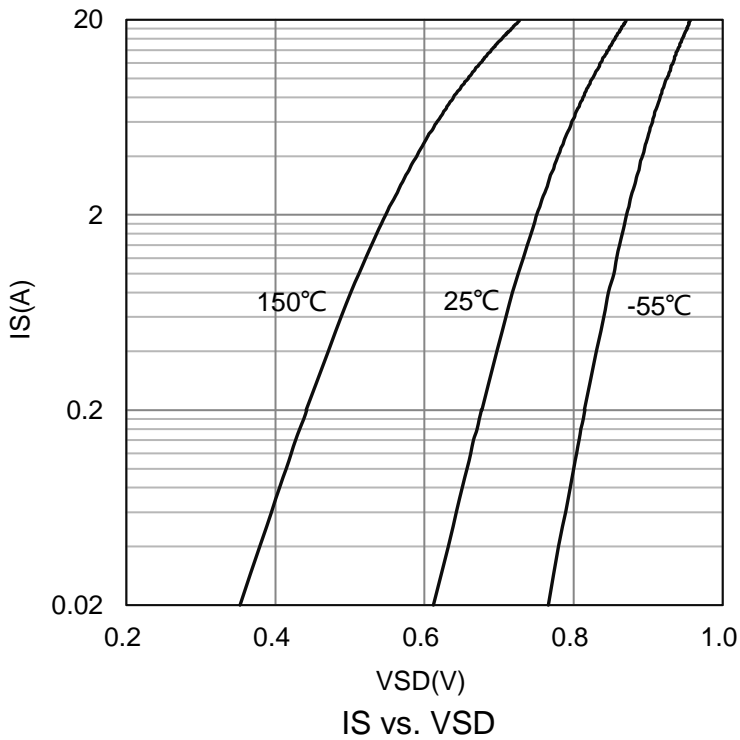
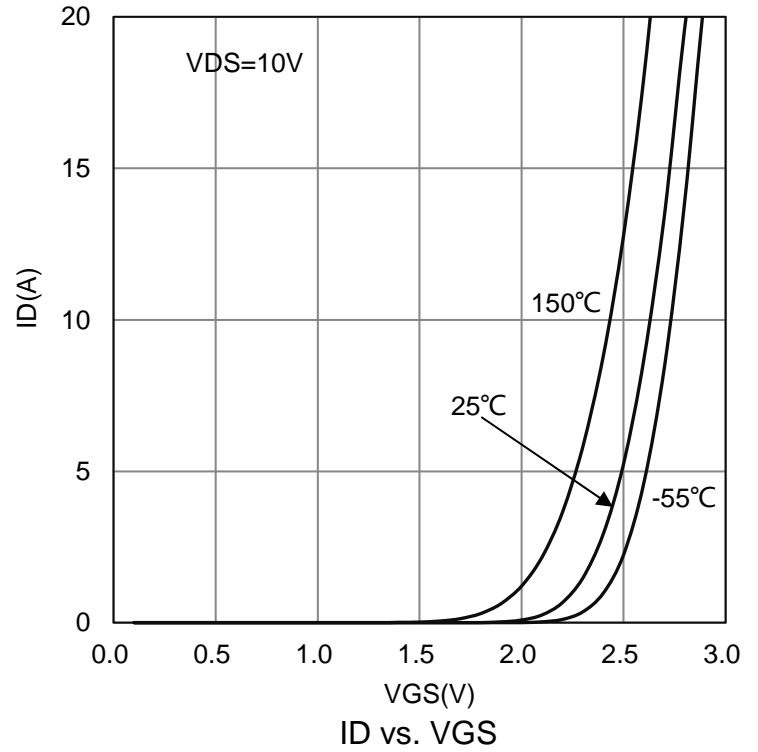
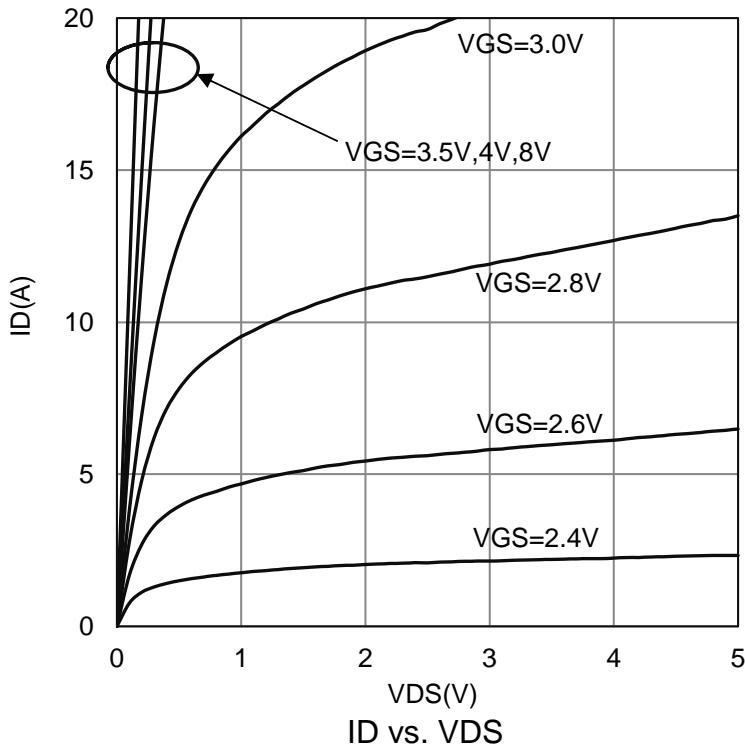
6. ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	Min.	Typ.	Max.	Unit	
Static						
Gate-Source Threshold Voltage (VDS = VGS , ID = 250 uA)	VGS(th)	1	-	-	V	
Gate-Body Leakage (VDS = 0 V, VGS = ±20 V)	IGSS	-	-	±100	nA	
Zero Gate Voltage Drain Current (VDS = 32 V, VGS = 0 V) (VDS = 32 V, VGS = 0 V, TJ = 55°C)	IDSS	-	-	1 25	μA	
On-State Drain Current(Note 3) (VDS = 5 V, VGS = 10 V)	ID(on)	20.7	-	-	A	
Drain-Source On-Resistance(Note 3) (VGS = 10 V, ID = 11 A) (VGS = 4.5 V, ID = 8.8 A)	RDS(on)	-	9.5 12	12 16	mΩ	
Forward Transconductance(Note 3) (VDS = 15 V, ID = 11 A)	gfs	-	14	-	S	
Diode Forward Voltage(Note 3) (IS= 2.3A, VGS = 0V)	VSD	-	0.74	-	V	
Dynamic						
Input Capacitance	(VDS = 15 V, VGS = 0 V, f = 1MHz)	Ciss	-	1532	-	pF
Output Capacitance		Coss	-	136	-	
Reverse Transfer Capacitance		Crss	-	123	-	
Total Gate Charge	(VDS = 20 V, VGS = 4.5 V, ID = 11A)	Qg	-	15.3	-	nC
Gate-Source Charge		Qgs	-	5	-	
Gate-Drain Charge		Qgd	-	5.2	-	
Turn-On Delay Time	(VDS=20 V, RL=1.9 Ω, ID=11 A, VGEN =10 V, RGEN=6 Ω)	td(on)	-	6	-	ns
Rise Time		tr	-	13	-	
Turn-Off Delay Time		td(off)	-	57	-	
Fall Time		tf	-	22	-	

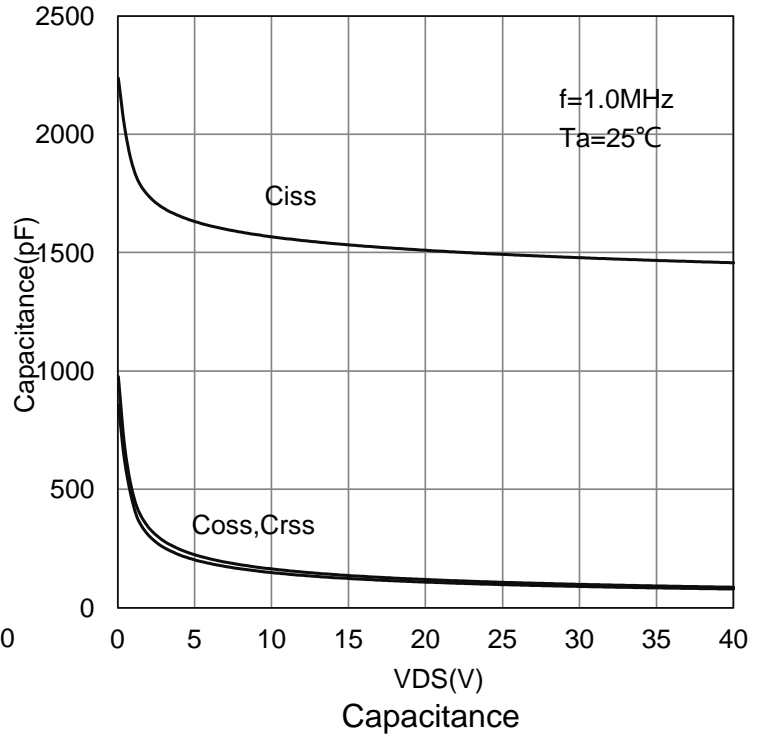
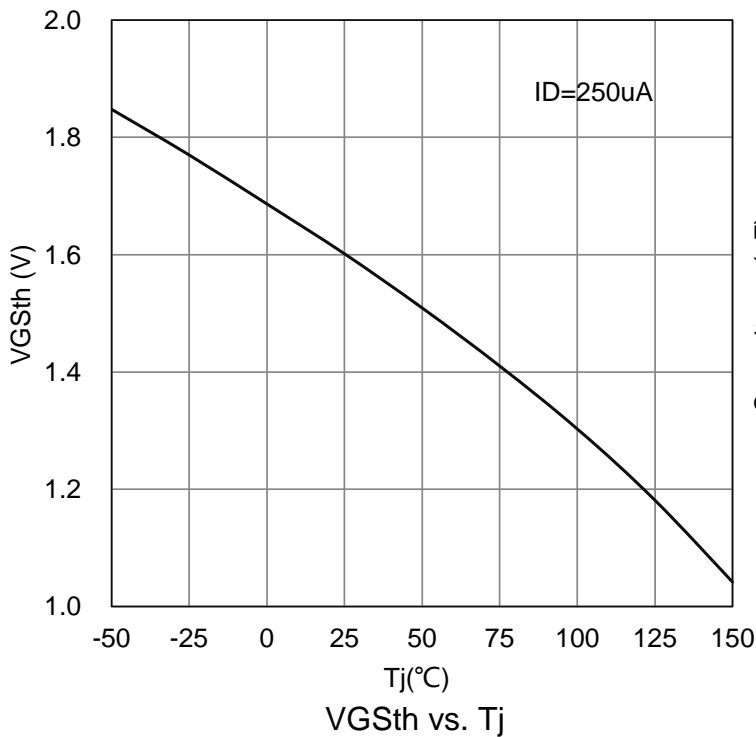
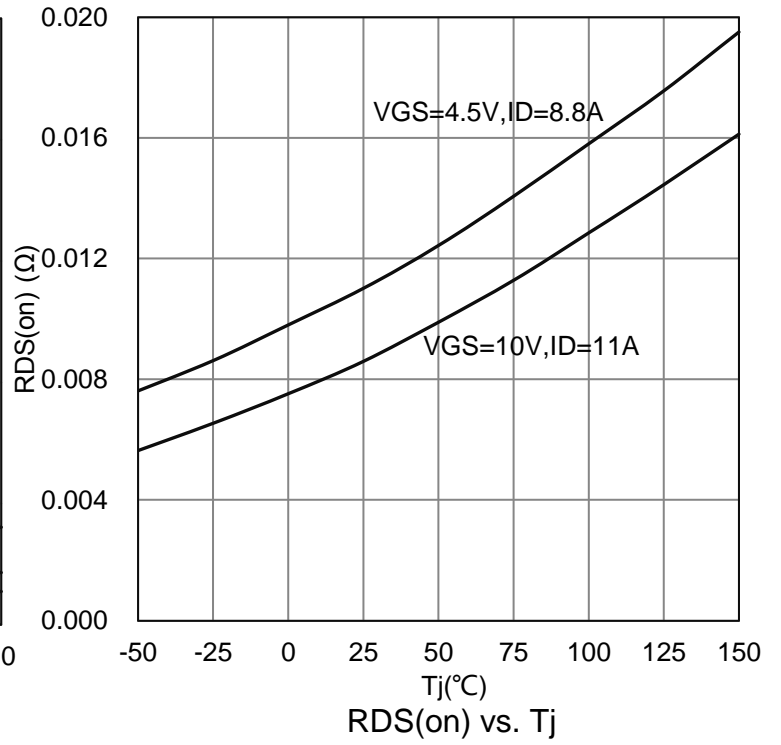
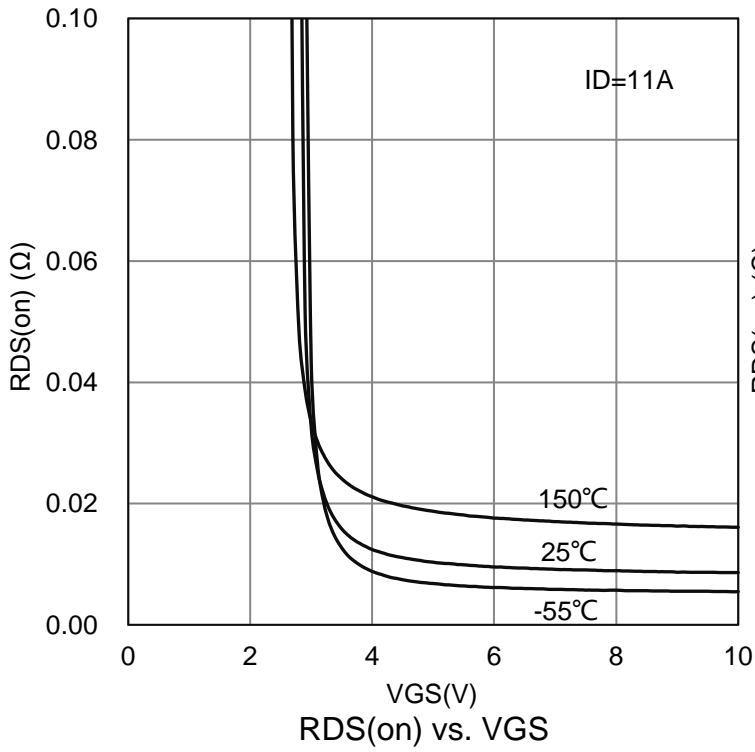
3.Pulse test: PW ≤ 300μs duty cycle ≤ 2%.

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

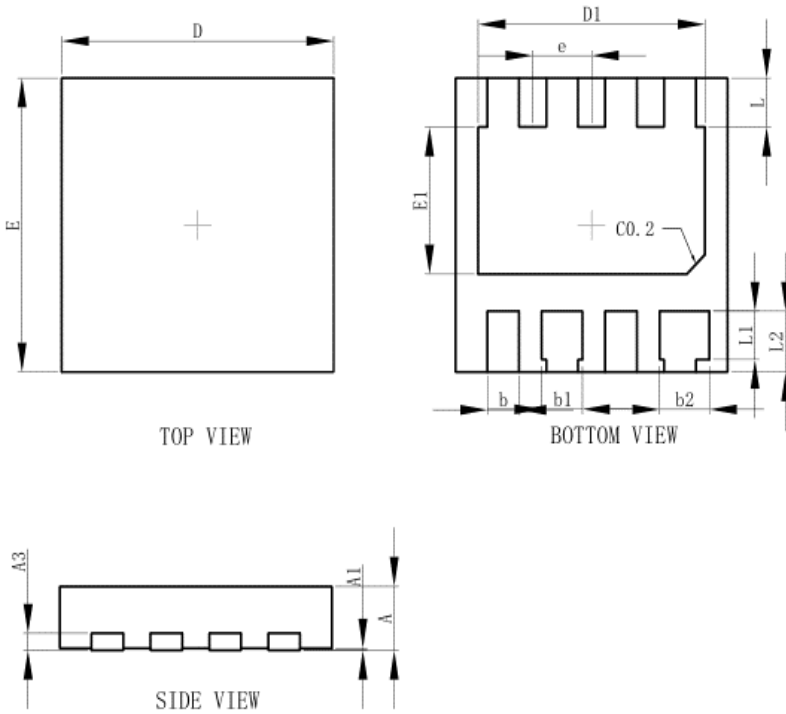
7. ELECTRICAL CHARACTERISTICS CURVES



7. ELECTRICAL CHARACTERISTICS CURVES(Con.)

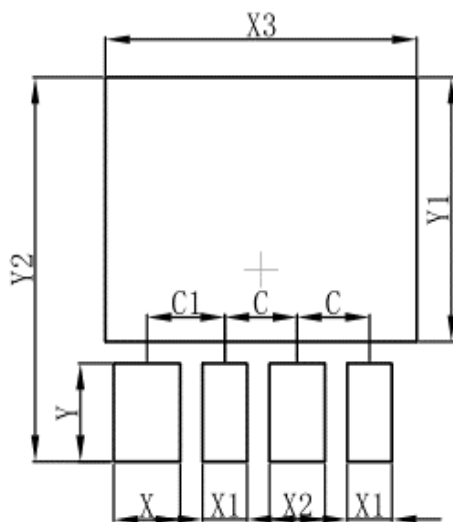


8. OUTLINE AND DIMENSIONS



DFN3030-8B			
Dim	Min	Nor	Max
A	0.60	0.65	0.70
A1	0.00	0.03	0.05
b	0.30	0.35	0.40
b1	0.40	0.45	0.50
b2	0.50	0.55	0.60
D	2.95	3.00	3.05
E	2.95	3.00	3.05
D1	2.45	2.50	2.55
E1	1.45	1.50	1.55
e	0.65BSC		
L	0.45	0.50	0.55
L1	0.44	0.49	0.54
L2	0.57	0.62	0.67
A3	0.152REF.		
All Dimensions in mm			

9. SOLDERING FOOTPRINT



DFN3030-8B	
Dim	(mm)
C	0.65
C1	0.70
X	0.60
X1	0.40
X2	0.50
X3	2.80
Y1	2.20
Y2	3.20
Y	0.82

单击下面可查看定价，库存，交付和生命周期等信息

[>>LRC\(乐山无线电\)](#)