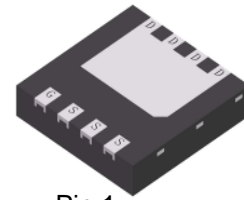
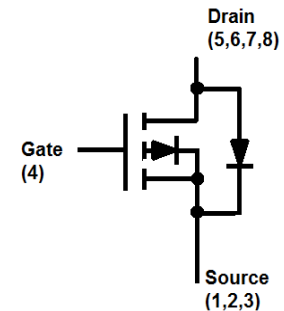


S-LPB8630DT0AG

P-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. APPLICATIONS

- Power Routing
- DC/DC Conversion
- Motor Drives

3. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
S-LPB8630DT0AG	P30	2000/Tape&Reel

4. MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
Drain-Source Voltage	VDS	-60	V
Gate-Source Voltage	VGS	±20	
Continuous Drain Current (Note 1)	ID	TA = 25°C	A
		TA = 70°C	
Pulsed Drain Current (Note 2)	IDM	-36	A
Avalanche Current (L = 0.1mH)	IAS	29	A
Avalanche Energy (L = 0.1mH)	EAS	42.05	mJ
Power Dissipation (Note 1)	PD	TA = 25°C	W
		TA = 70°C	1.3
Operating Junction and Storage Temperature Range	TJ , Tstg	-55~+150	°C

5. THERMAL CHARACTERISTICS

Parameter	Symbol	Max	Unit
Thermal Resistance,Junction-to-Ambient(Note 1)	RθJA	60	°C/W
Thermal Resistance,Junction-to-Ambient(Note 3)	RθJA	165	
Thermal Resistance,Junction-to-Case	RθJC	5	

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.

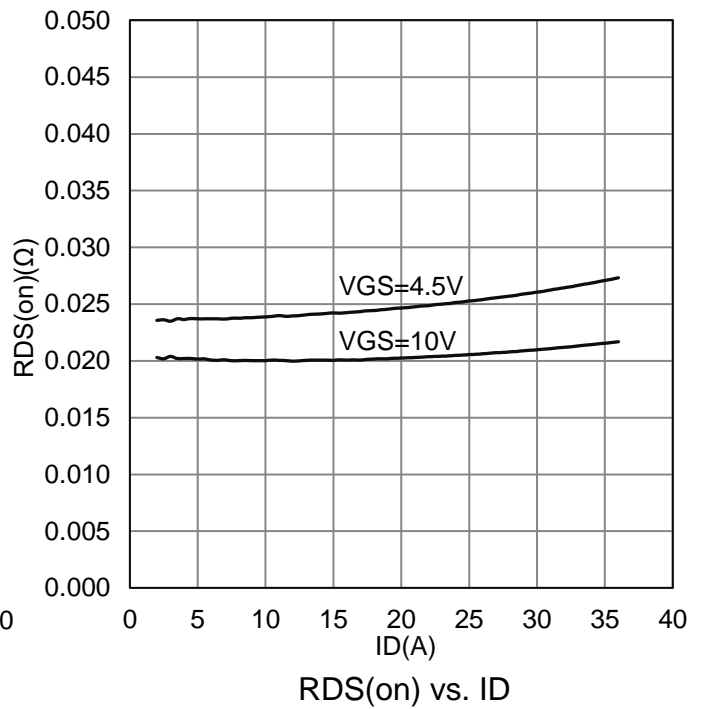
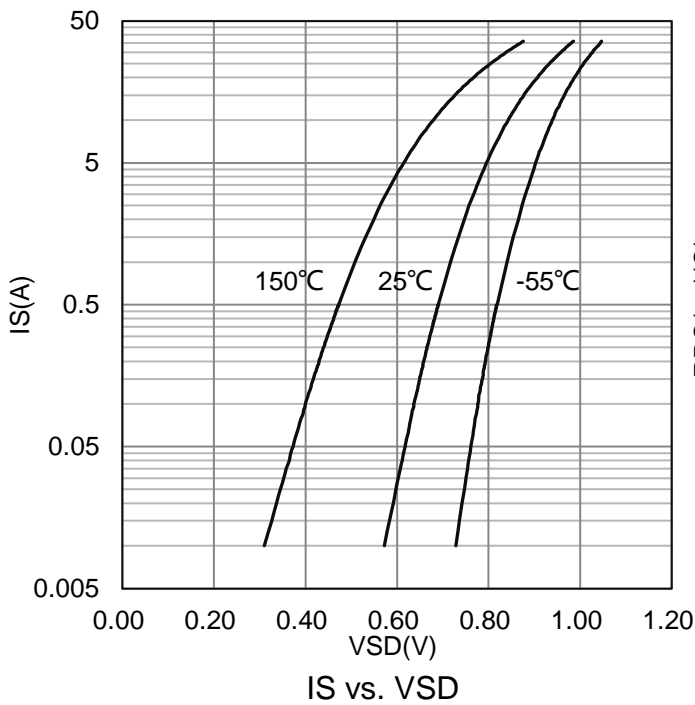
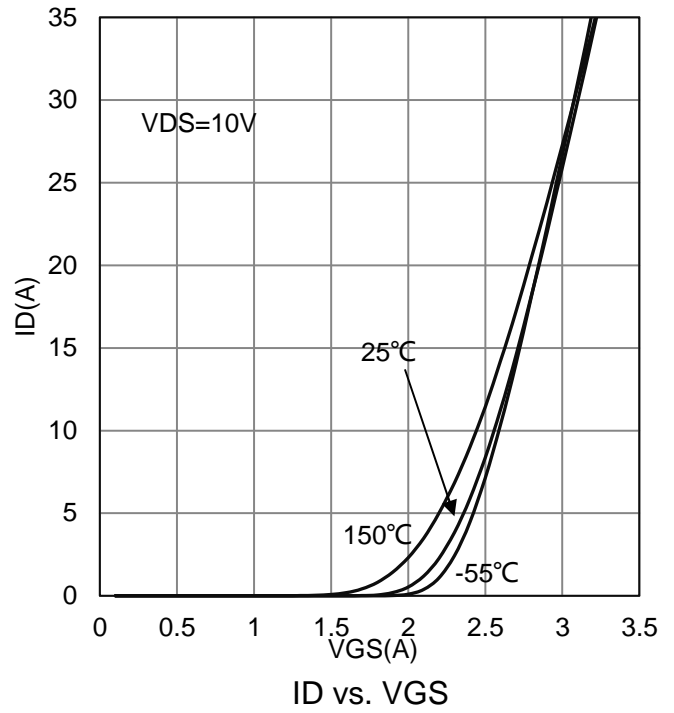
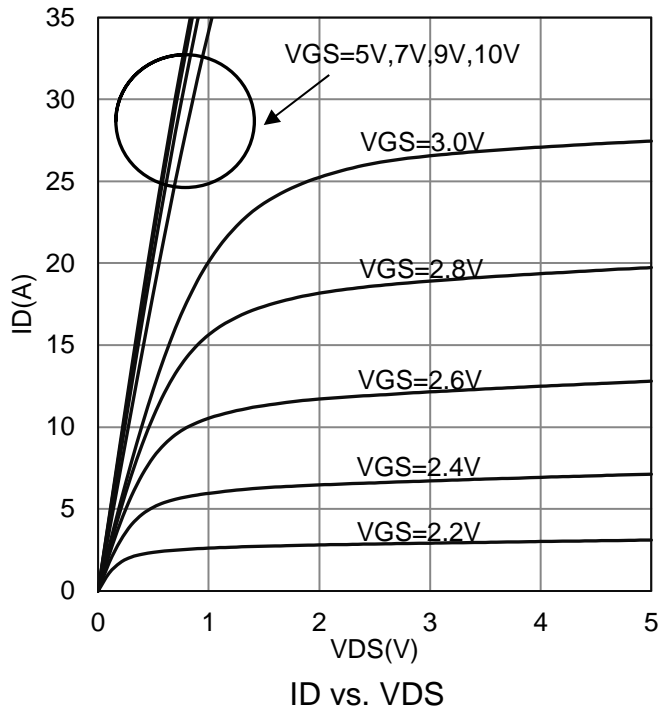
3.Surface-mounted on FR4 board using the minimum recommended pad size.

6. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

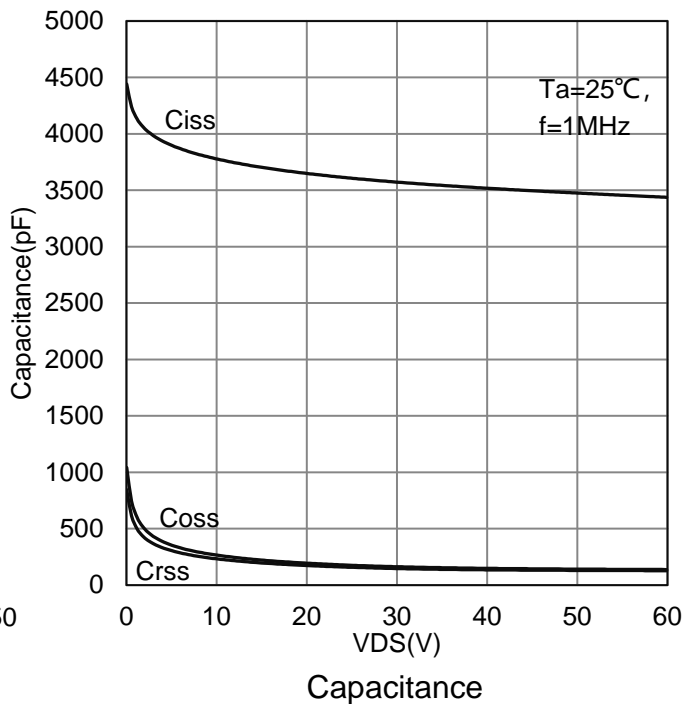
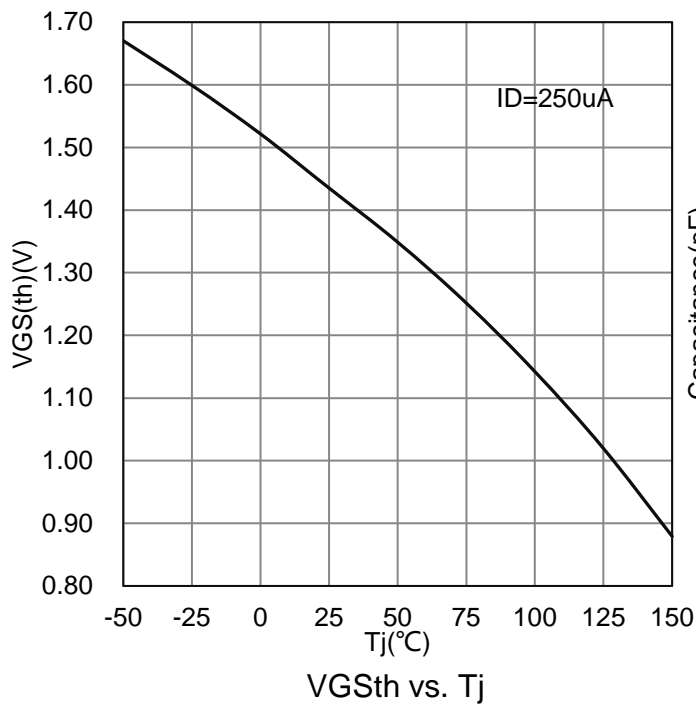
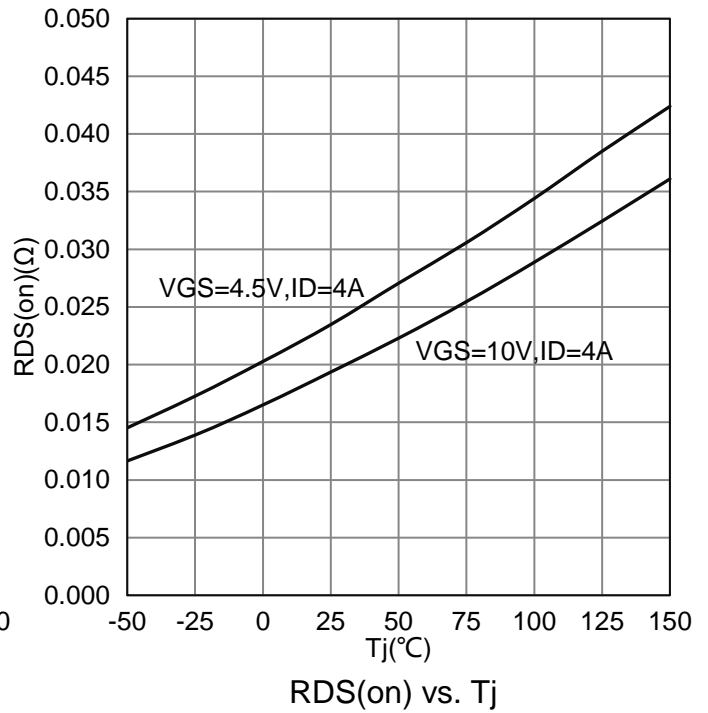
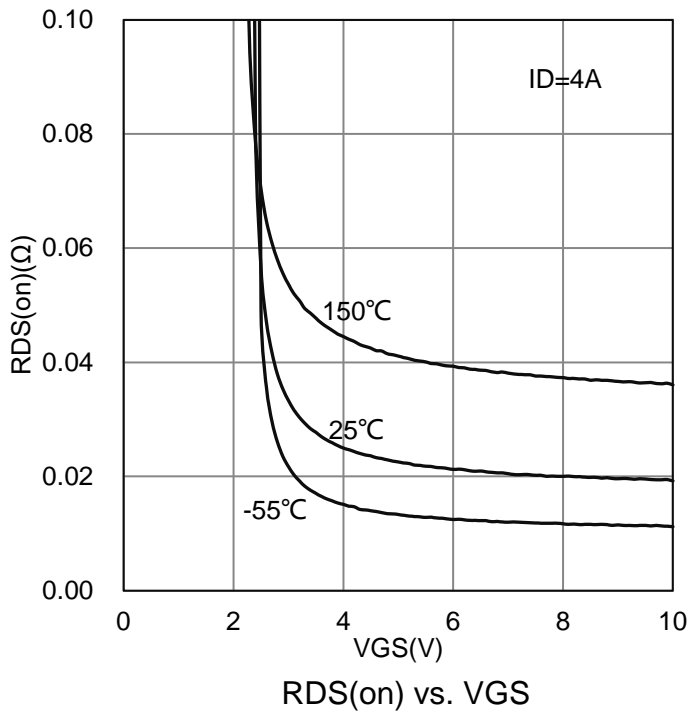
Characteristic	Symbol	Min.	Typ.	Max.	Unit	
Static						
Drain–Source Breakdown Voltage (VGS = 0, ID = -250μA)	VBRDSS	-60	-	-	V	
Gate Threshold Voltage (VDS =VGS , ID =-250μA)	VGS(th)	-1	-	-3	V	
Gate Leakage Current (VDS =0V, VGS =±20V)	IGSS	-	-	± 10	uA	
Zero Gate Voltage Drain Current (VDS = -48 V, VGS = 0 V) (VDS = -48 V, VGS = 0 V, TJ = 55°C)	IDSS	-	-	-1 -25	μA	
Drain-Source On-Resistance(Note 4) (VGS = -10 V, ID = -4 A) (VGS = -4.5 V, ID = -4 A)	RDS(ON)	-	-	26 34	mΩ	
Diode Forward Voltage (IS = -2 A, VGS = 0 V)	VSD	-	-	-1.2	V	
Dynamic						
Total Gate Charge	(VDS = -30 V, VGS = -4.5 V, ID = -4 A)	Qg	-	29.6	-	nC
Gate-Source Charge		Qgs	-	7.4	-	
Gate-Drain Charge		Qgd	-	9.7	-	
Turn-On Delay Time	(VDS = -30 V, RL = 7.5 Ω, ID = -4 A, VGEN = -10 V, RGEN = 6 Ω)	td(on)	-	15	-	ns
Rise Time		tr	-	18	-	
Turn-Off Delay Time		td(off)	-	136	-	
Fall Time		tf	-	76	-	
Input Capacitance	(VDS = -30 V, VGS = 0 V, f = 1 MHz)	Ciss	-	3571	-	pF
Output Capacitance		Coss	-	162	-	
Reverse Transfer Capacitance		Crss	-	146	-	
Gate Resistance (VDS = 0 V, VGS = 0 V, f = 1 MHz)	Rg	-	3	-	Ω	

4. Pulse test: PW ≤ 300us duty cycle ≤ 2%.

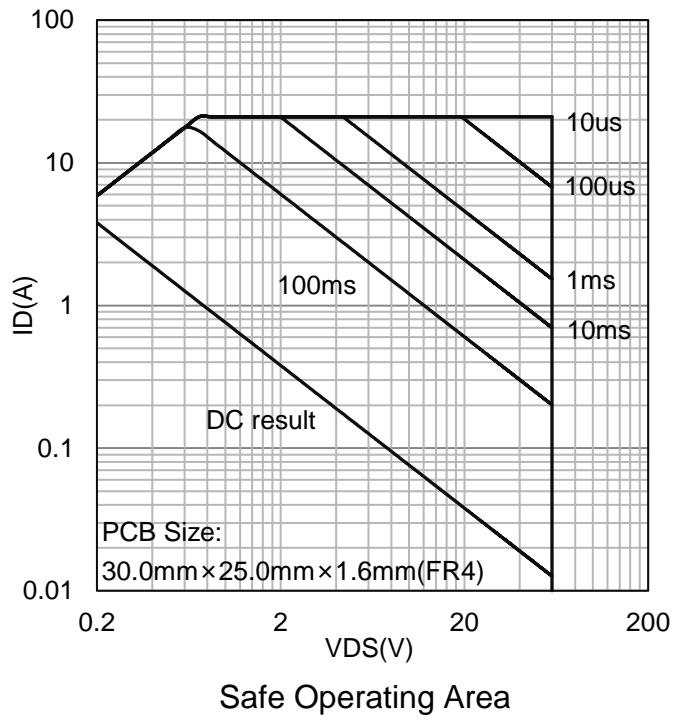
7. ELECTRICAL CHARACTERISTICS CURVES



7. ELECTRICAL CHARACTERISTICS CURVES(Con.)

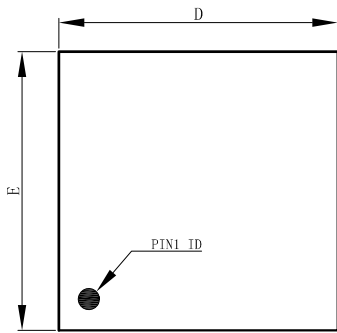


7. ELECTRICAL CHARACTERISTICS CURVES(Con.)

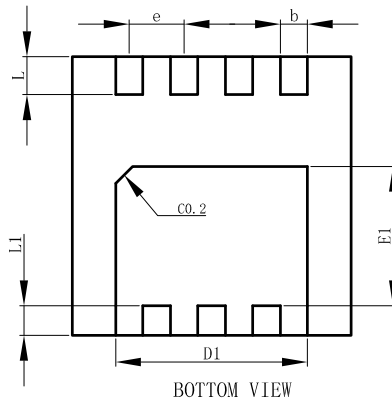


8. OUTLINE AND DIMENSIONS

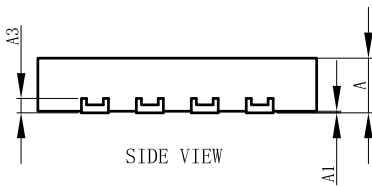
DFN3333-8A



TOP VIEW



BOTTOM VIEW

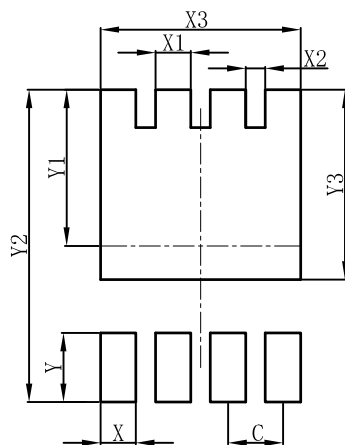


SIDE VIEW

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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