

LP8337DT1AG

P-Channel 30-V (D-S) MOSFET

1. FEATURES

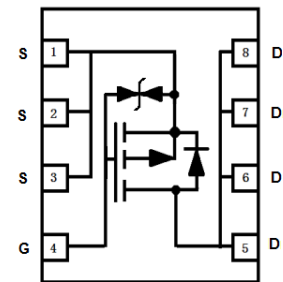
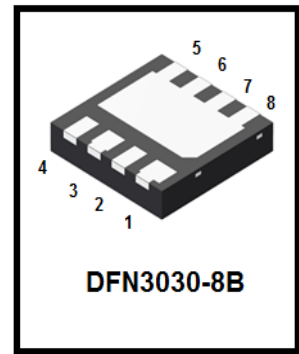
- Low RDS(on) trench technology.
- Low thermal impedance.
- Fast switching speed.
- We declare that the material of product are Halogen Free and compliance with RoHS requirements.
- ESD protected

2. APPLICATION

- Load Switches
- DC/DC Conversion
- Motor Drives

3. ORDERING INFORMATION

Device	Marking	Shipping
LP8337DT1AG	A37	3000/Tape&Reel



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

Parameter	Symbol	Limits	Unit
Drain-to-Source Voltage	VDSS	-30	V
Gate-to-Source Voltage	VGS	±25	V
Avalanche Current	IAS	40	A
Avalanche energy L=0.1mH	EAS	80	mJ
Continuous Drain Current(Note 1)	ID	TA =25°C	-18
		TA =70°C	-13
Pulsed Drain Current (Note 2)	IDM	-50	A
Power Dissipation(Note 1)	PD	TA =25°C	3.5
		TA =70°C	2
Operating Junction Temperature	TJ	-55 ~+150	°C
Storage Temperature Range	Tstg	-55 ~+150	

- 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)	RθJA	t ≤10s	35
		Steady State	81

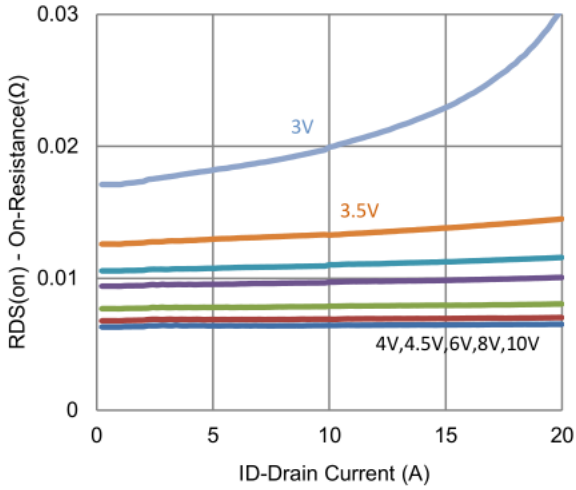
6. ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	Min.	Typ.	Max.	Unit	
Static						
Drain-Source Breakdown Voltage (VGS=0 , ID = -250 uA)	V(BR)DSS	-30			V	
Gate-Source Threshold Voltage (VDS = VGS , ID = -250 uA)	VGS(th)	-1	-1.3	-3	V	
Gate-Body Leakage (VDS = 0 V, VGS = ±25 V)	IGSS	-	-	±10	μA	
Zero Gate Voltage Drain Current (VDS = -24 V, VGS = 0 V) (VDS = -24 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)	-25	-	-	A	
Drain-Source On-Resistance(Note 3) (VGS = -10 V, ID = -13.6 A) (VGS = -4.5 V, ID = -10.9 A)	RDS(on)	-	7.5 10.5	9 13	mΩ	
Forward Transconductance(Note 3) (VDS = -15 V, ID = -13.6 A)	gfs	-	12	-	S	
Diode Forward Voltage(Note 3) (IS = -2.3 A, VGS = 0 V)	VSD	-	-0.76	-1.2	V	
Dynamic(Note 4)						
Total Gate Charge	(VDS = -15 V, VGS = -4.5 V, ID = -13.6 A)	Qg	-	60	-	nC
Gate-Source Charge		Qgs	-	17	-	
Gate-Drain Charge		Qgd	-	22	-	
Input Capacitance	(VDS = -15 V, VGS = 0 V, f = 1 MHz)	Ciss	-	5743	-	pF
Output Capacitance		Coss	-	453	-	
Reverse Transfer Capacitance		Crss	-	446	-	
Turn-On Delay Time	(VDS=-15 V, RL=1.2 Ω, ID=- 13.6 A, VGEN=-10 V, RGEN=6 Ω)	td(on)	-	14	-	ns
Rise Time		tr	-	37	-	
Turn-Off Delay Time		td(off)	-	124	-	
Fall Time		tf	-	55	-	
Source-Drain DIODE Ratings and Characteristics(Tc= 25° C)						
Continuous Current(Note 1)	IS			-25	A	
Plused Current(Note 1)	ISM			-100	A	
Reverse Recovery Time (IF=IS, dIf/dt=100A/us)	trr		62		ns	
Reverse Recovery Charge (IF=IS, dIf/dt=100A/us)	Qrr		68		nC	

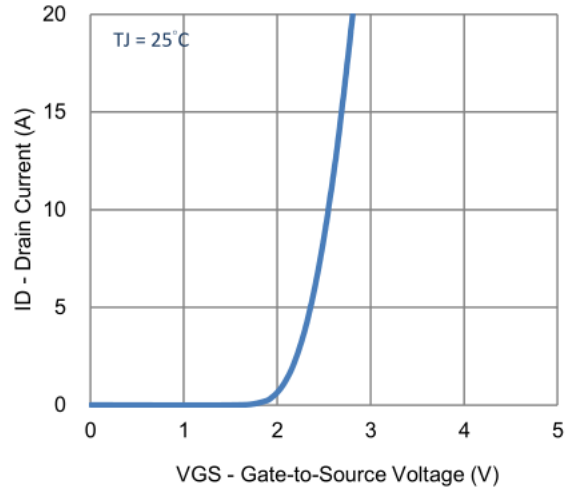
3. Pulse test: PW ≤ 300μs duty cycle ≤ 2%.

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

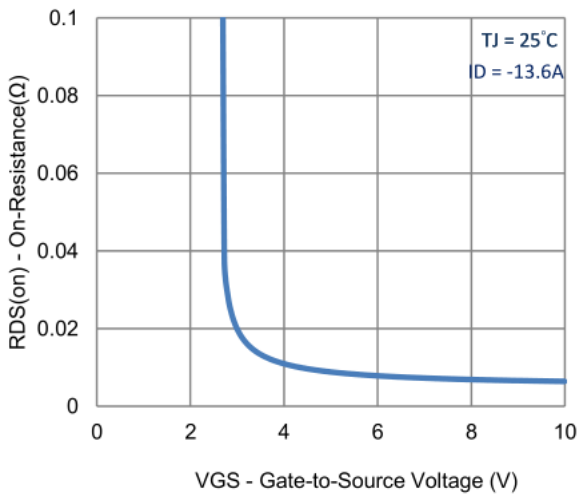
7. ELECTRICAL CHARACTERISTICS CURVES



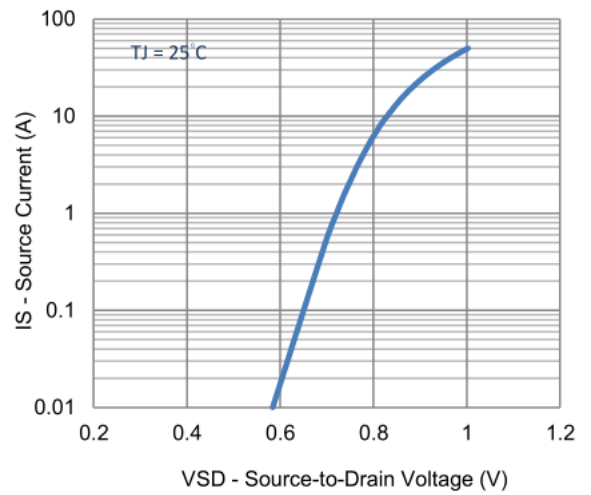
1. On-Resistance vs. Drain Current



2. Transfer Characteristics

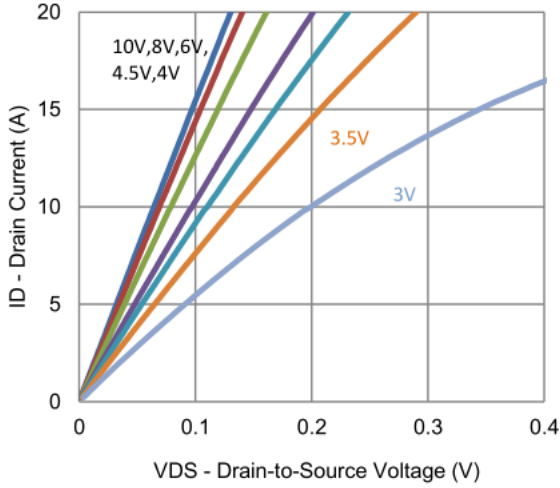


3. On-Resistance vs. Gate-to-Source Voltage

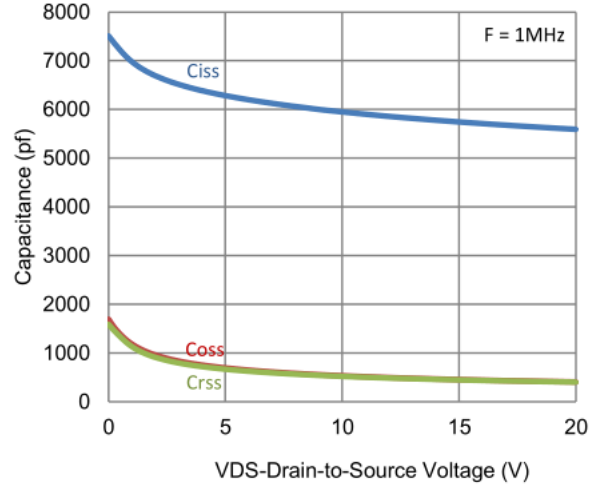


4. Drain-to-Source Forward Voltage

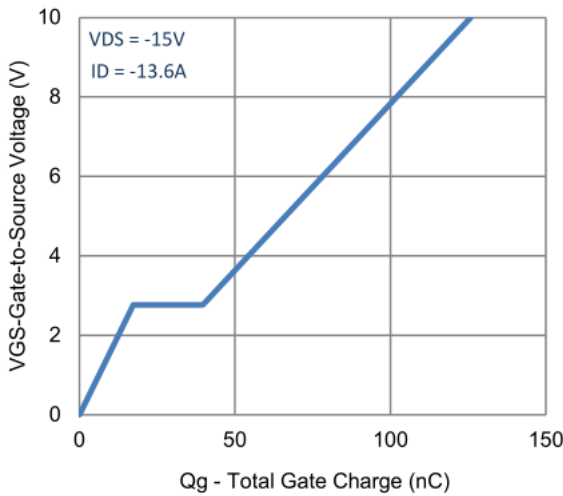
7. ELECTRICAL CHARACTERISTICS CURVES(Con.)



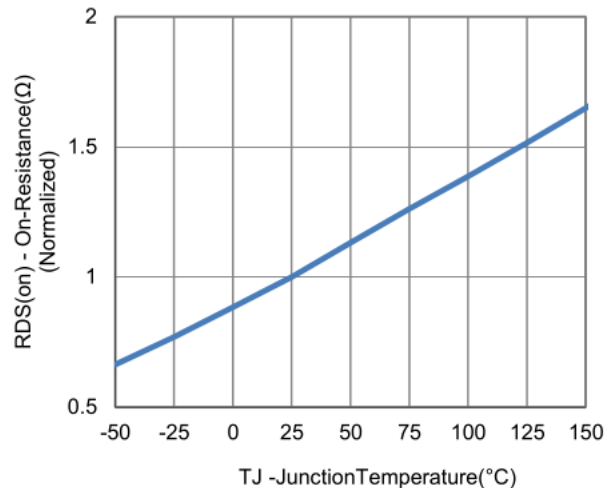
5. Output Characteristics



6. Capacitance

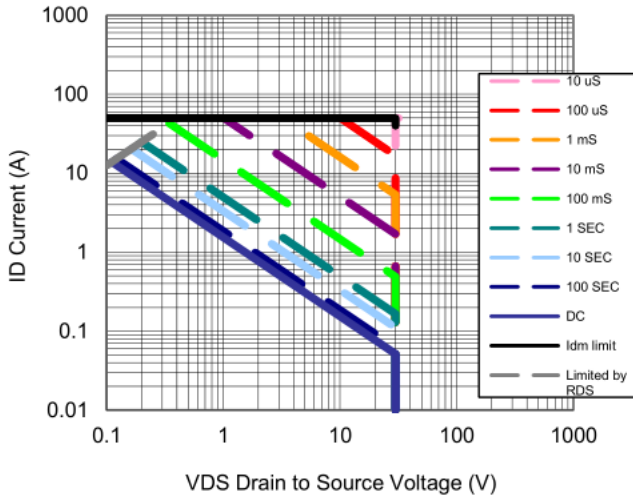


7. Gate Charge

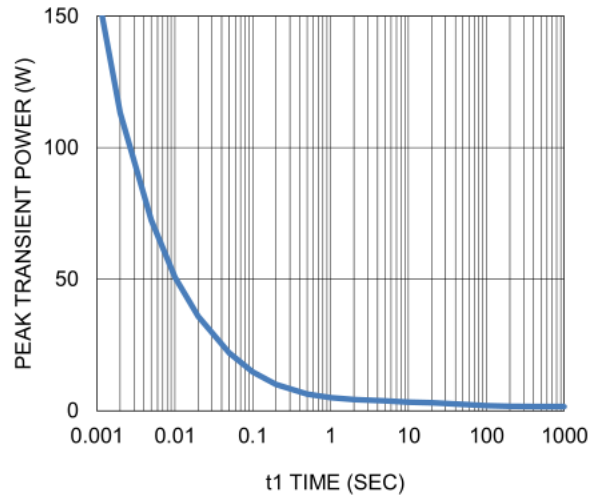


8. Normalized On-Resistance Vs Junction Temperature

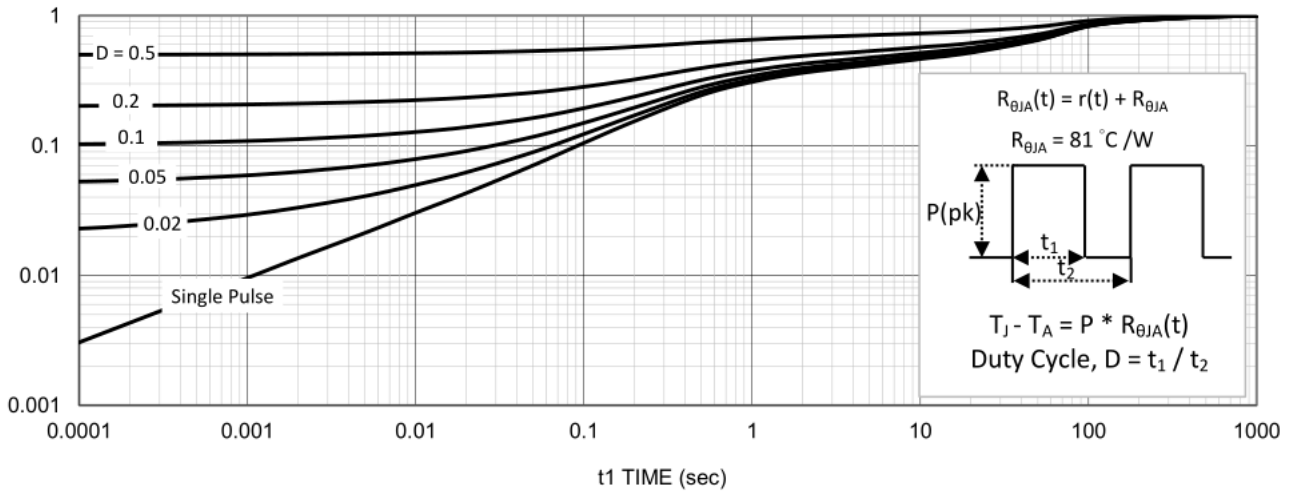
7. ELECTRICAL CHARACTERISTICS CURVES(Con.)



VDS Drain to Source Voltage (V)
9. Safe Operating Area

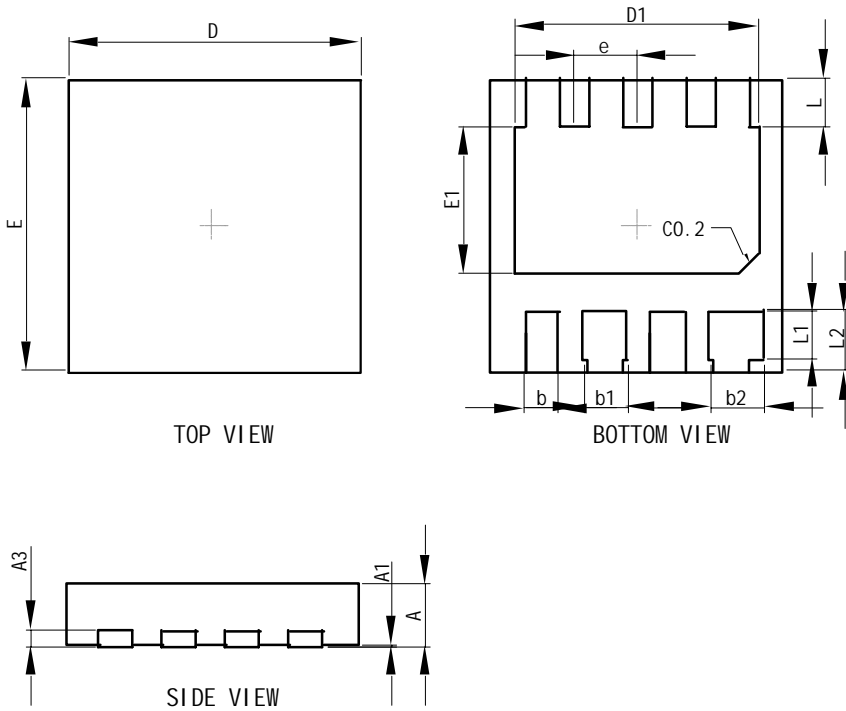


10. Single Pulse Maximum Power Dissipation



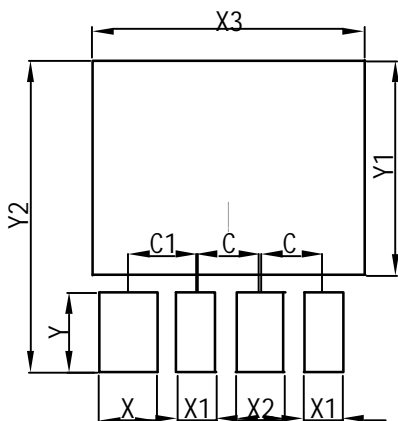
11. Normalized Thermal Transient Junction to Ambient

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\(乐山无线电\)](#)