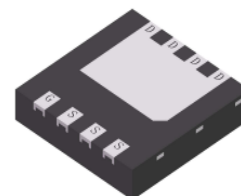


LPB8337DT0AG

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



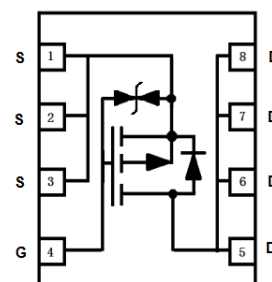
DFN3333-8A

2. APPLICATION

- Load Switches
- DC/DC Conversion
- Motor Drives

3. ORDERING INFORMATION

Device	Marking	Shipping
LPB8337DT0AG	A37	2000/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	35	A
Avalanche energy L=0.1mH		EAS	61.25	mJ
Continuous Drain Current(Note 1)	TA =25°C	ID	-9	A
	TA =70°C		-7	
Pulsed Drain Current (Note 2)		IDM	-40	
Power Dissipation(Note 5)	TA =25°C	PD	0.78	W
	TA =70°C		0.5	
Operating Junction Temperature		TJ	-55 ~+150	°C
Storage Temperature Range		Tstg	-55 ~+150	

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

2.Pulse width limited by maximum junction temperature.

5. THERMAL CHARACTERISTICS

Parameter	Symbol	Value	Unit
Junction-to-Case (Note 1)	RθJC	21	°C/W
Junction-to-Ambient – Steady State (Note 1)	RθJA	160	
Junction-to-Ambient – Steady State (Note 5)	RθJA	80	
Junction-to-Ambient – (t ≤10 s) (Note 5)	RθJA	33	

6. ELECTRICAL CHARACTERISTICS

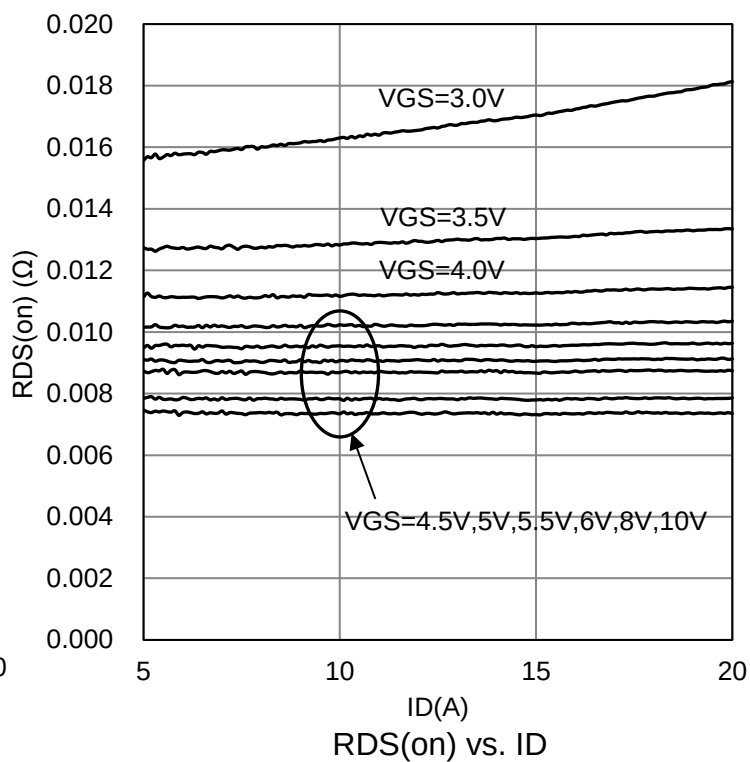
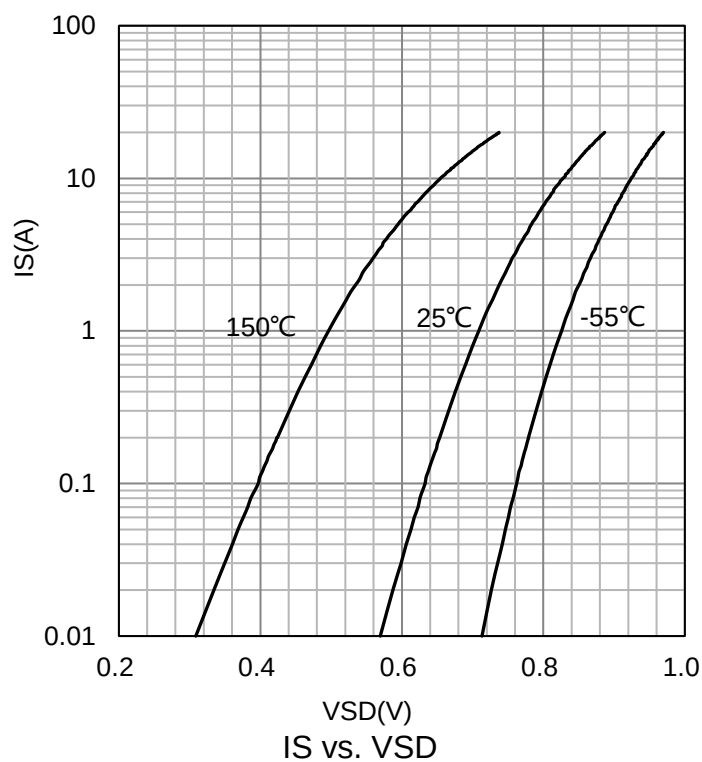
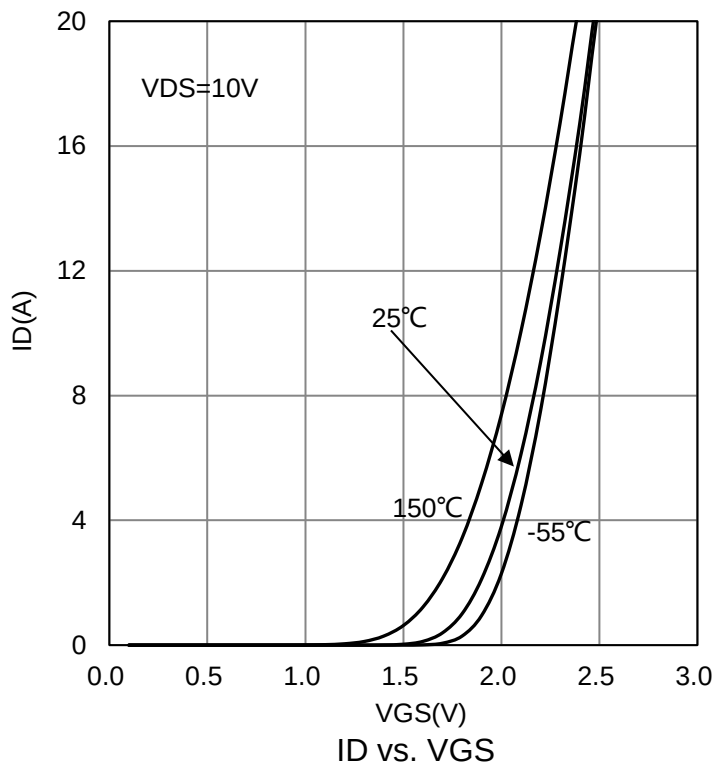
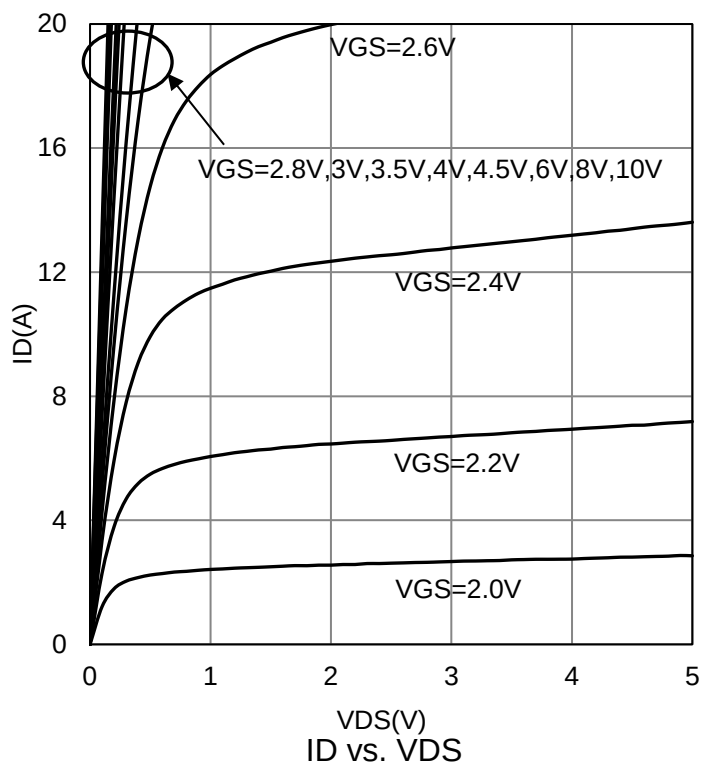
Characteristic		Symbol	Min.	Typ.	Max.	Unit
Static						
Drain-Source Breakdown Voltage (VGS=0 , ID = -250 uA)		V(BR)DSS	-30	-	-	V
Gate-Source Threshold Voltage (VDS = VGS , ID = -250 uA)		VGS(th)	-1	-1.3	-3	V
Gate-Body Leakage (VDS = 0 V, VGS = ± 25 V)		IGSS	-	-	± 10	μA
Zero Gate Voltage Drain Current (VDS = -24 V, VGS = 0 V) (VDS = -24 V, VGS = 0 V, TJ = 55° C)		IDSS	- -	- -	-1 -25	μA
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
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	-	26.22	-	nC
Gate-Source Charge		Qgs	-	3.48	-	
Gate-Drain Charge		Qgd	-	13.26	-	
Input Capacitance	(VDS = -15 V, VGS = 0 V, f = 1 MHz)	Ciss	-	4555	-	pF
Output Capacitance		Coss	-	442	-	
Reverse Transfer Capacitance		Crss	-	441	-	
Turn-On Delay Time	(VDS=-15 V, RL=1.2 Ω,ID=- 13.6 A,VGEN=-10 V,RGEN=6 Ω)	td(on)	-	15	-	ns
Rise Time		tr	-	46	-	
Turn-Off Delay Time		td(off)	-	113.8	-	
Fall Time		tf	-	120.9	-	
Gate Resistance (VDS=0V ,VGS=0V, f=1.0MHz)		Rg	-	2.5	5.2	Ω
Source-Drain DIODE Ratings and Characteristics(Tc= 25° C)						
Continuous Current(Note 5)		IS	-	-	-25	A
Plused Current(Note 5)		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: $PW \leq 300\mu s$ duty cycle $\leq 2\%$.

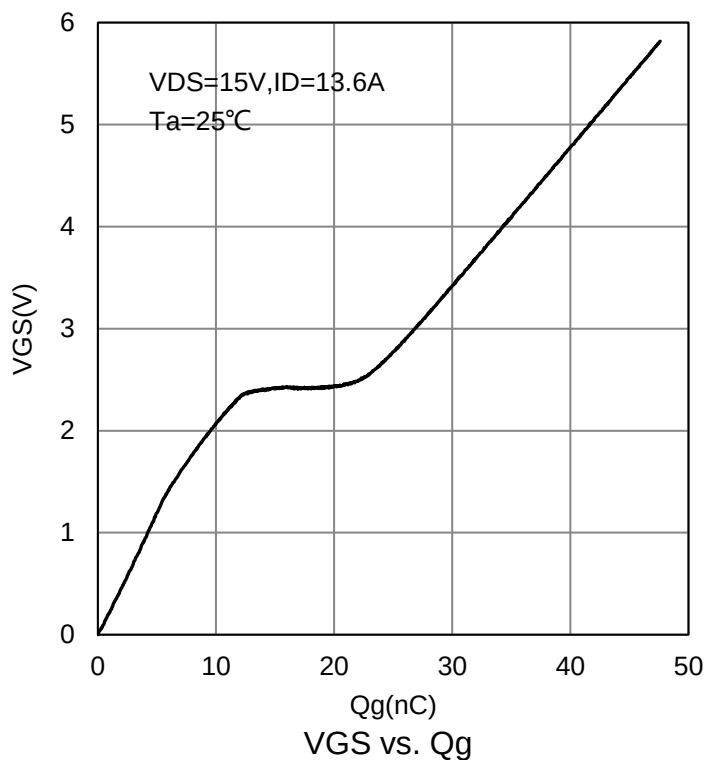
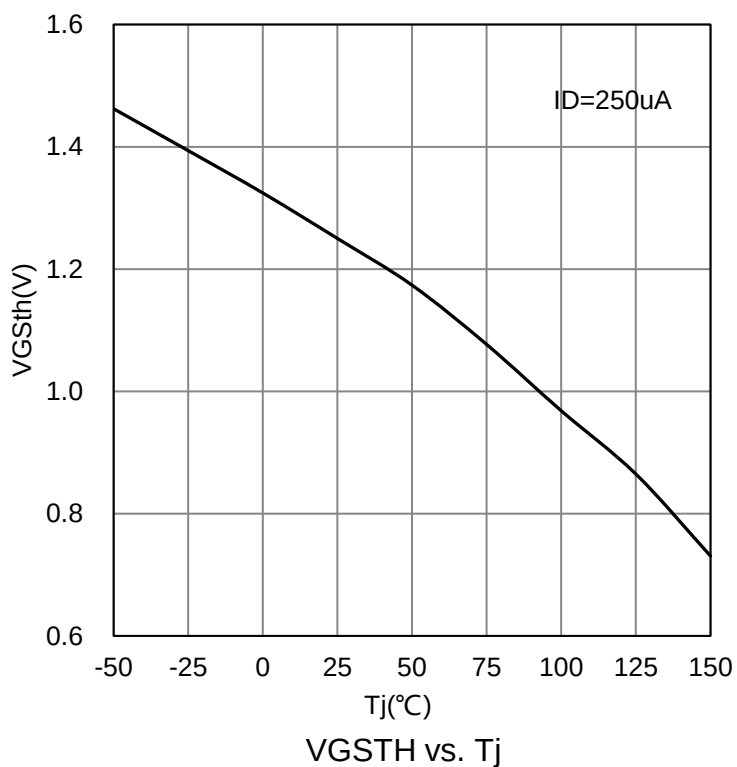
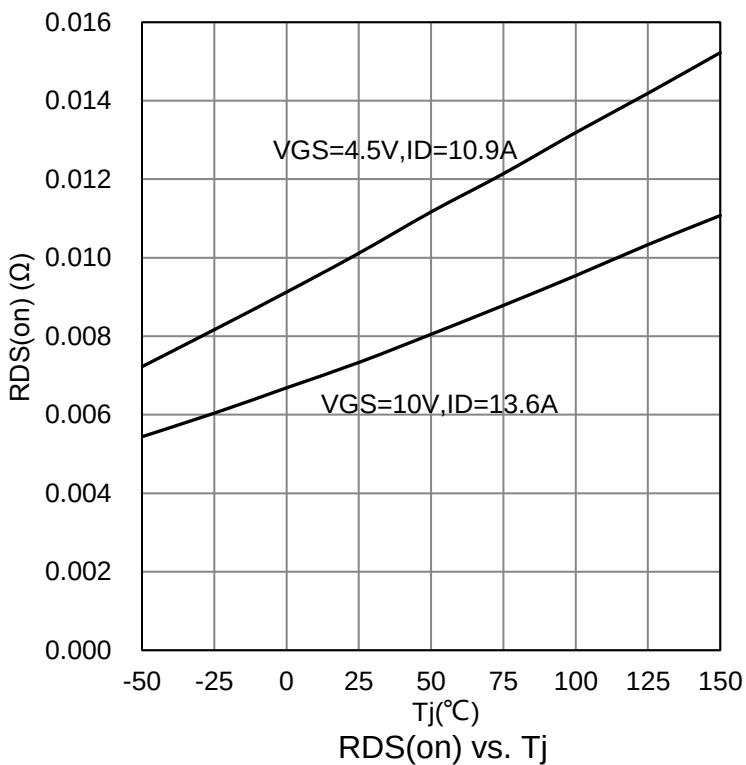
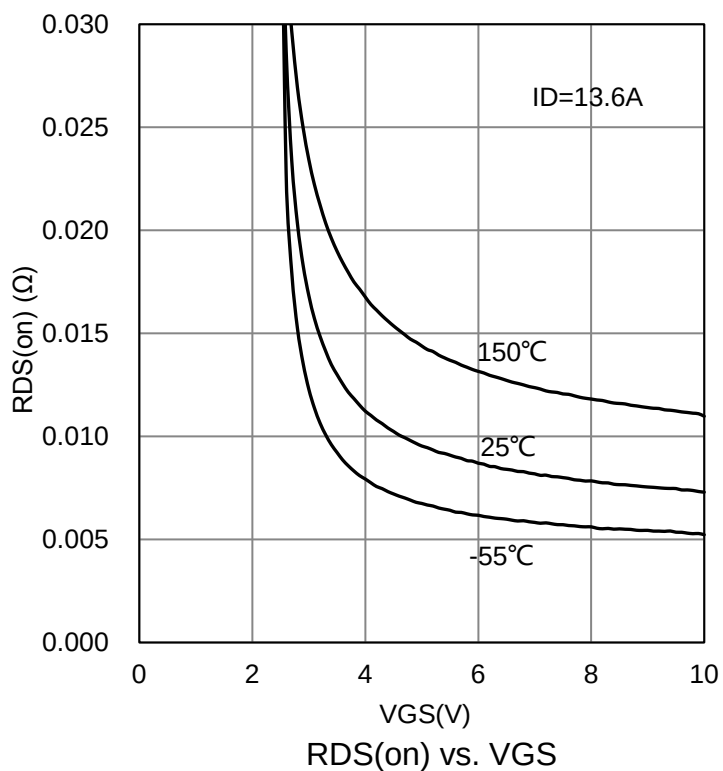
4. Guaranteed by design, not subject to production testing.

5. Surface-mounted on FR4 board using 1 sq-in pad, 1 oz Cu.

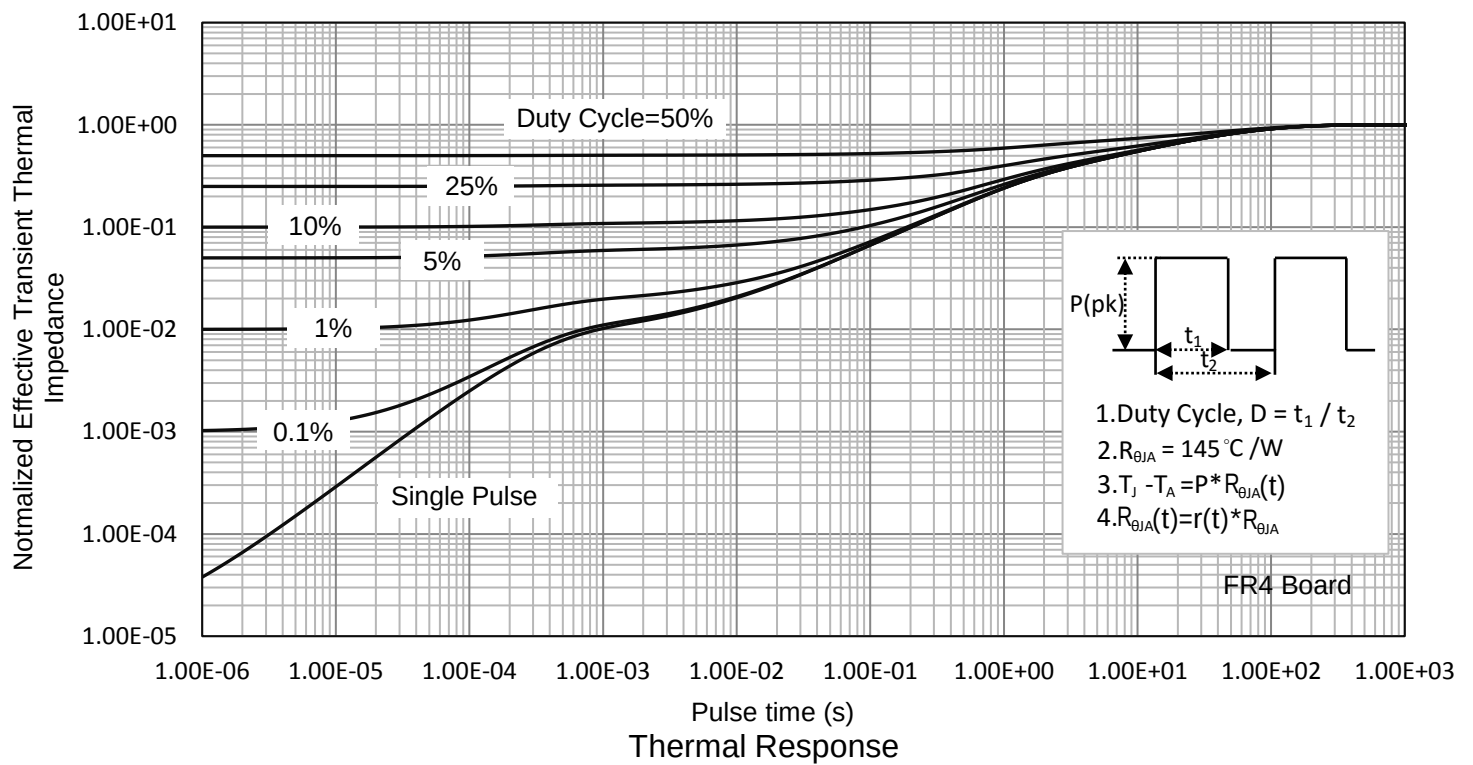
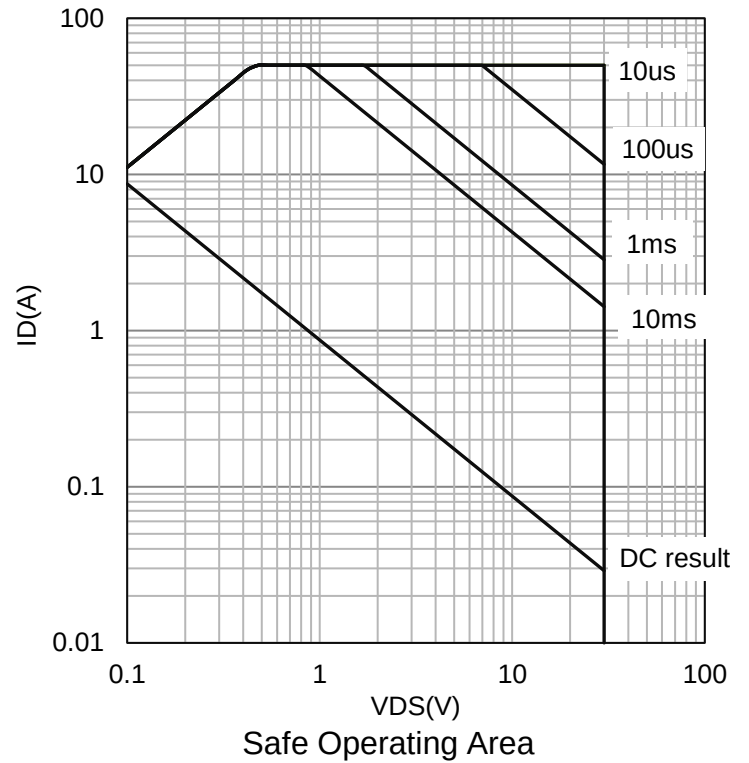
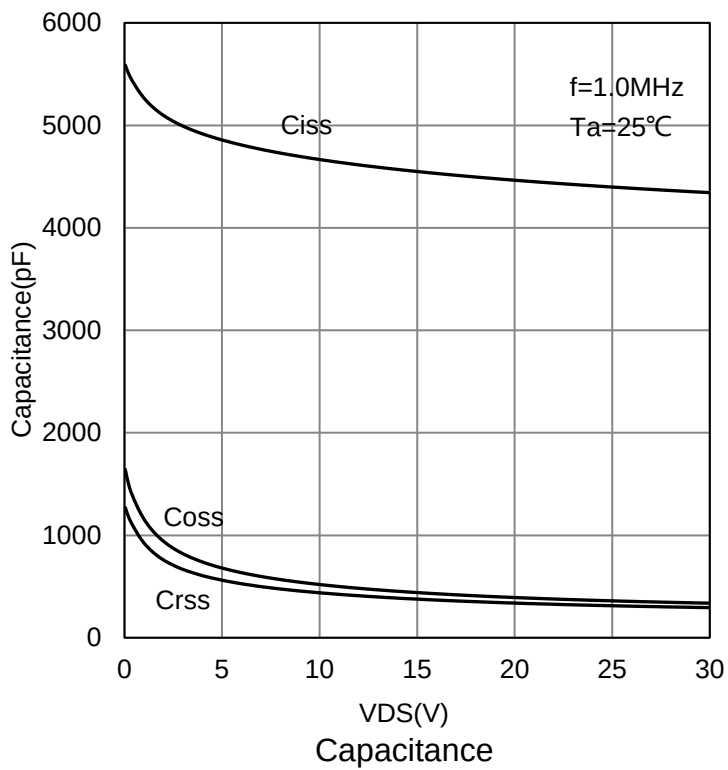
7. ELECTRICAL CHARACTERISTICS CURVES



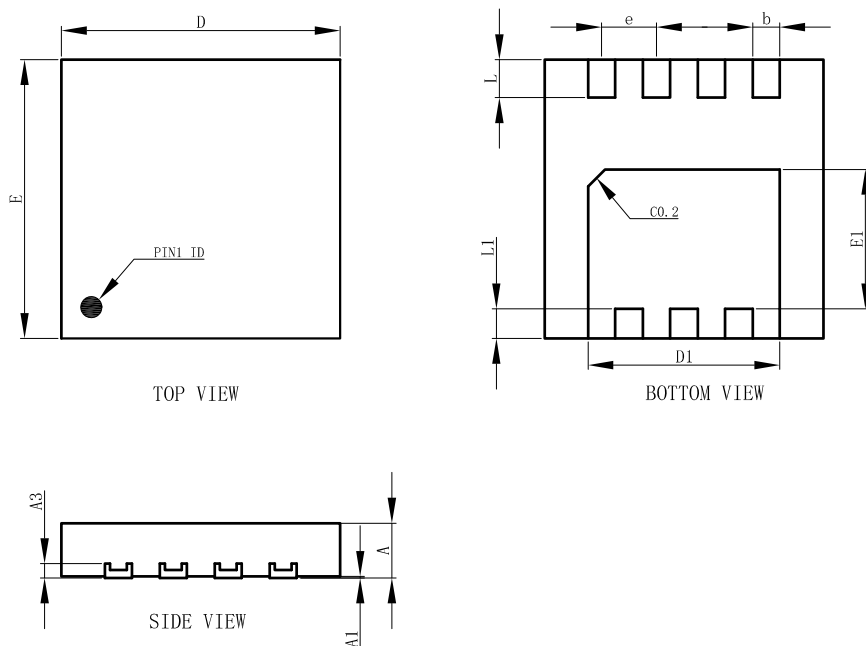
7. ELECTRICAL CHARACTERISTICS CURVES(Con.)



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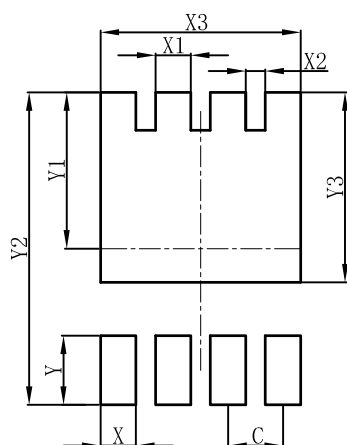


8.OUTLINE AND DIMENSIONS



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.
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