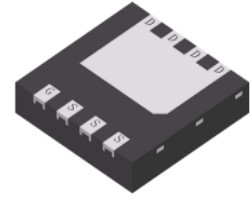


S-LNB8404DT0AG

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

1. FEATURES

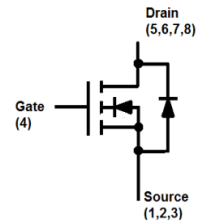
- Low RDS(on) trench technology.
- Low thermal impedance.
- Fast switching speed.
- We declare that the material of product are Halogen Free and compliance with RoHS requirements.
- S-prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable.



DFN3333-8A

2. APPLICATION

- DC/DC Conversion
- Power Routing
- Motor Drives



3. ORDERING INFORMATION

Device	Marking	Shipping
S-LNB8404DT0AG	B4N	2000/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	ID	TA =25°C	22
		TA =70°C	17.5
Pulsed Drain Current (Note 2)	IDM	88	A
Continuous Drain Current	ID	TC =25°C	69
		TC =70°C	55
Pulsed Drain Current	IDM	276	A
Continuous Source Current (Diode Conduction)(Note 1)	IS	22	A
Avalanche Current(L=0.1mH)	IAS	33	A
Avalanche energy(L=0.1mH)	EAS	54.45	mJ
Power Dissipation(Note 1)	PD	TA =25°C	2.1
		TA =70°C	1.3
Power Dissipation	PD	TC =25°C	25
		TC =70°C	16
Operating Junction Temperature	TJ	-55 ~+150	°C
Storage Temperature Range	Tstg	-55 ~+150	

5. THERMAL CHARACTERISTICS

Parameter	Symbol	Max	Unit
Thermal Resistance,Junction-to-Ambient(Note 1)	RθJA	60	°C/W
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.

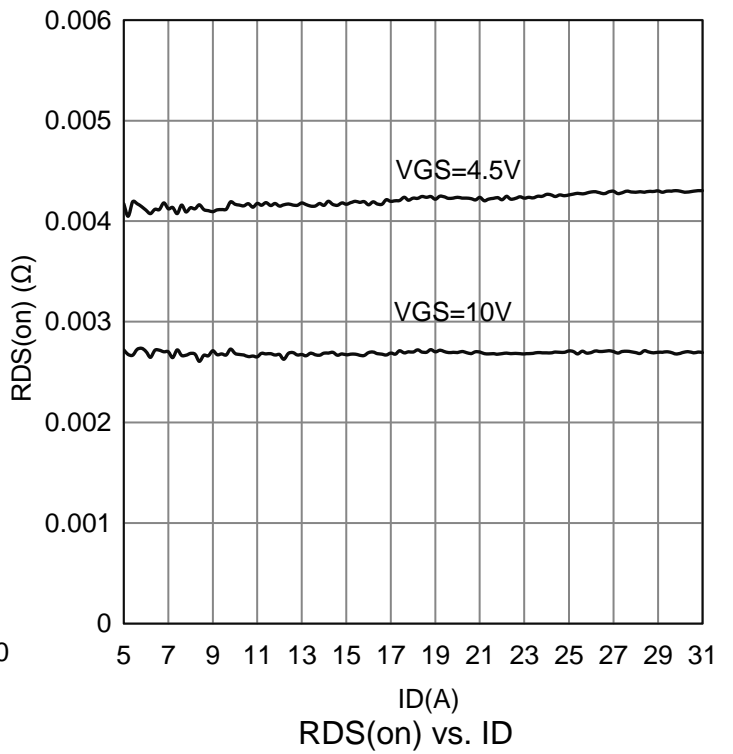
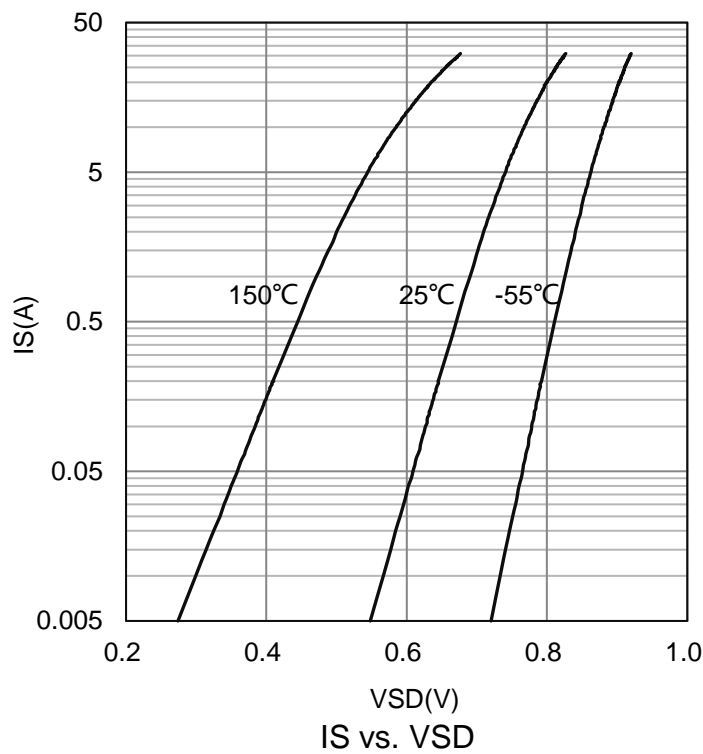
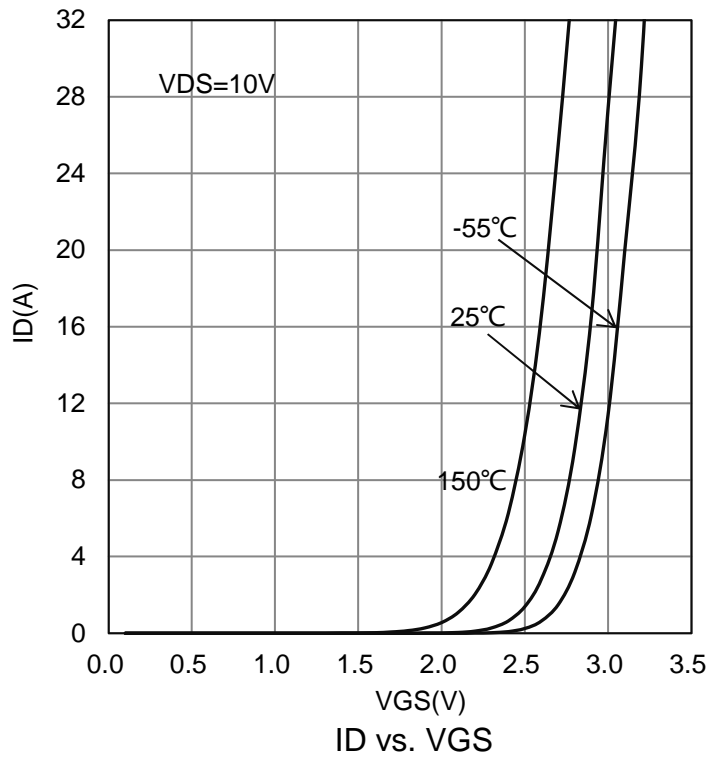
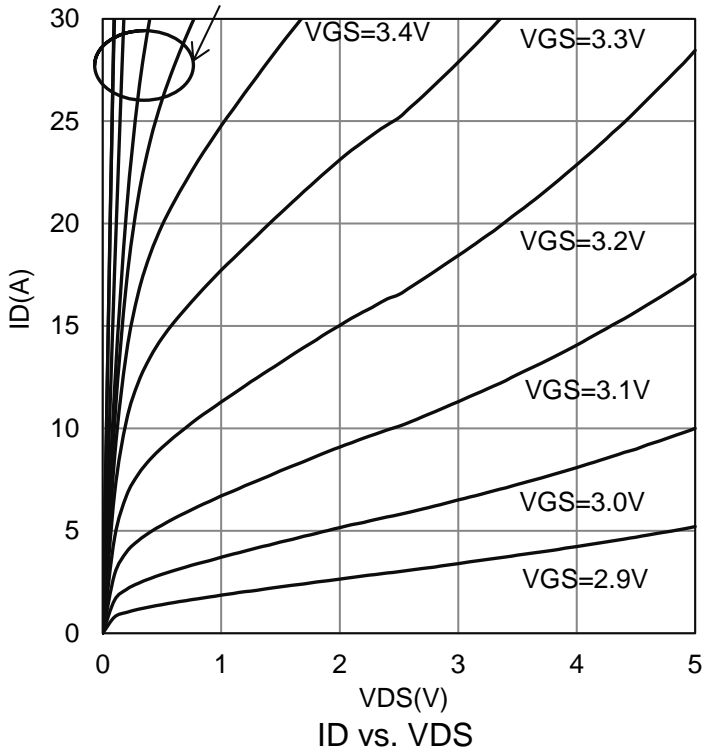
6. ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	Min.	Typ.	Max.	Unit	
Static						
Drain-Source Breakdown Voltage (VGS = 0 V, ID = 250 μ A)	VBRDSS	40	-	-	V	
Gate-Source Threshold Voltage (VDS = VGS, ID = 250 μ A)	VGS(th)	1	2	3	V	
Gate-Body Leakage (VDS = 0 V, VGS = \pm 20 V)	IGSS	-	-	\pm 100	nA	
Zero Gate Voltage Drain Current (VDS = 32 V, VGS = 0 V)	IDSS	-	-	1	μ A	
Drain-Source On-Resistance(Note 3) (VGS = 10 V, ID = 16 A) (VGS = 4.5 V, ID = 14 A)	RDS(on)	-	-	3.2 6	m Ω	
Diode Forward Voltage(Note 3) (IS = 3.1 A, VGS = 0 V)	VSD	-	0.7	1.3	V	
Dynamic						
Total Gate Charge	(VDS = 20 V, VGS = 4.5 V, ID = 16 A)	Qg	-	20.5	-	nC
Gate-Source Charge		Qgs	-	7.6	-	
Gate-Drain Charge		Qgd	-	8.3	-	
Input Capacitance	(VDS = 15 V, VGS = 0 V, f = 1 MHz)	Ciss	-	2478	-	pF
Output Capacitance		Coss	-	1387	-	
Reverse Transfer Capacitance		Crss	-	146	-	
Turn-On Delay Time	(VDS = 20 V, RL = 1.3 Ω , VGEN = 10 V, RGEN = 6 Ω)	td(on)	-	15	-	ns
Rise Time		tr	-	18	-	
Turn-Off Delay Time		td(off)	-	68	-	
Fall Time		tf	-	37	-	

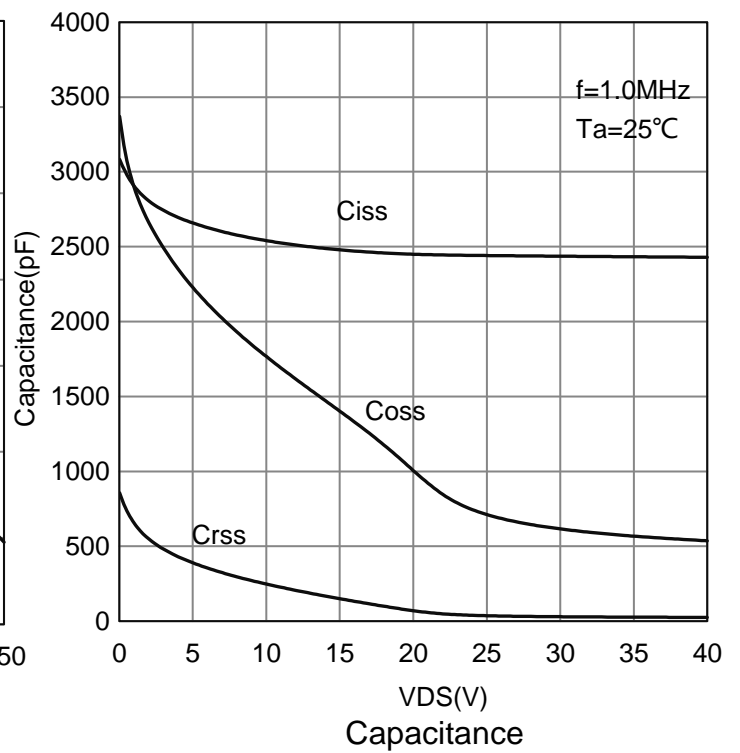
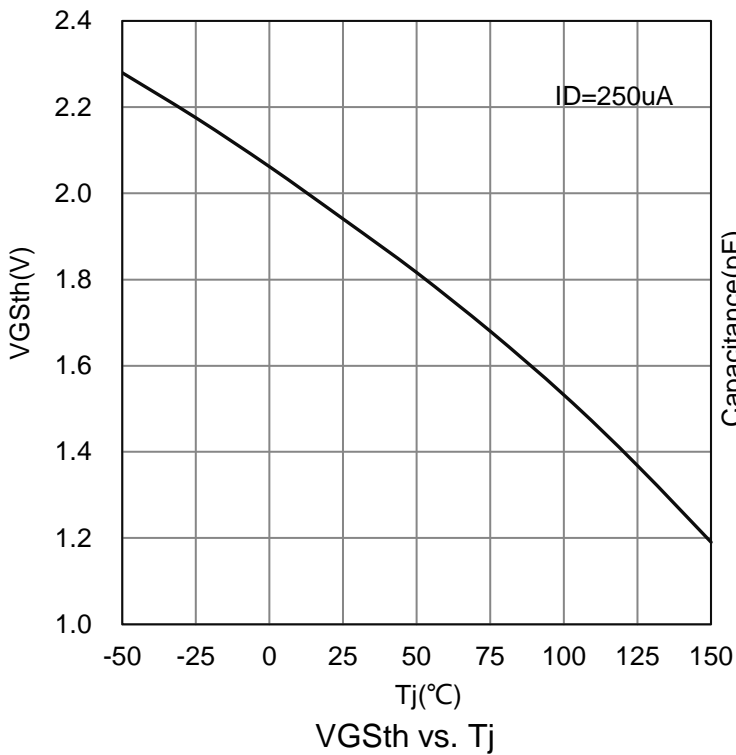
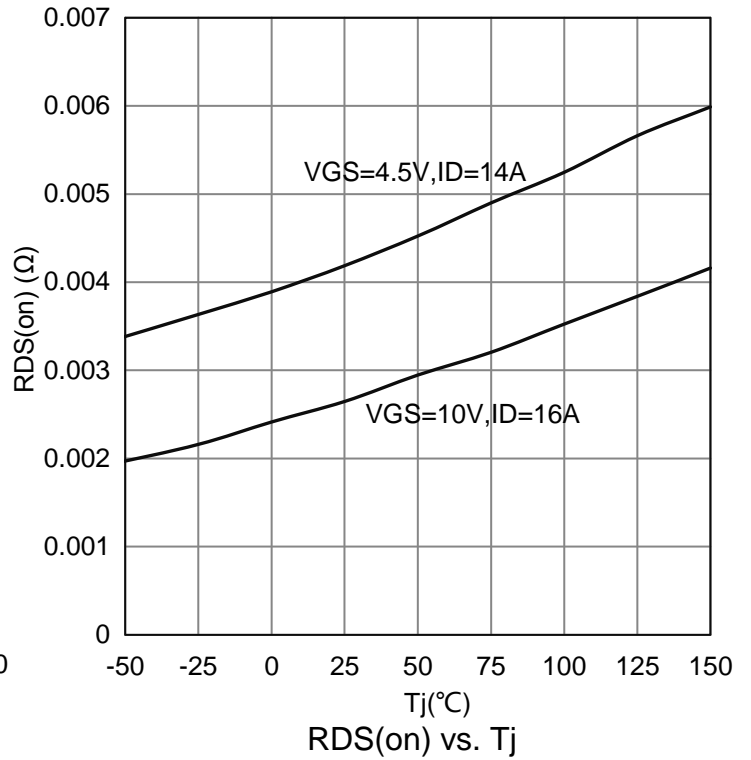
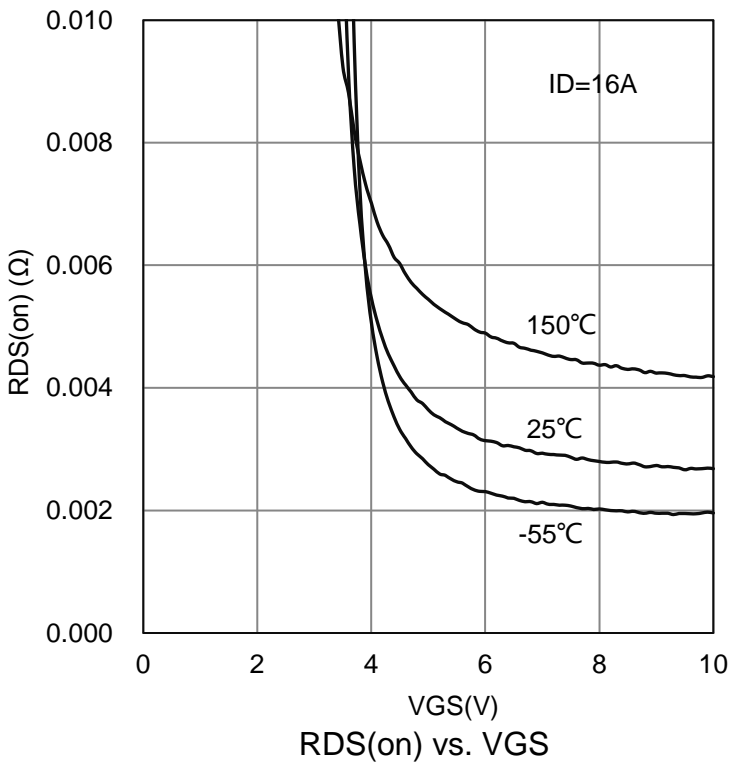
3.Pulse test: PW \leq 300 μ s duty cycle \leq 2%.

7. ELECTRICAL CHARACTERISTICS CURVES

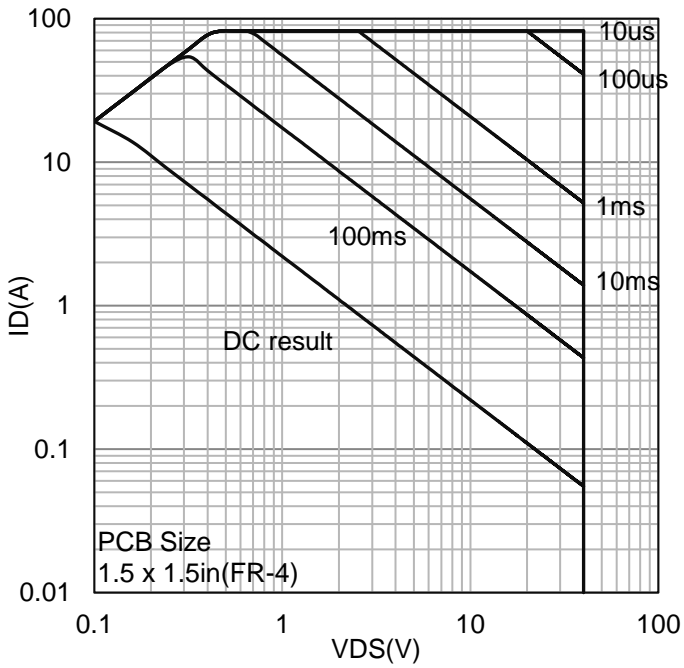
VGS=3.5V,3.6V,4V,8V,10V



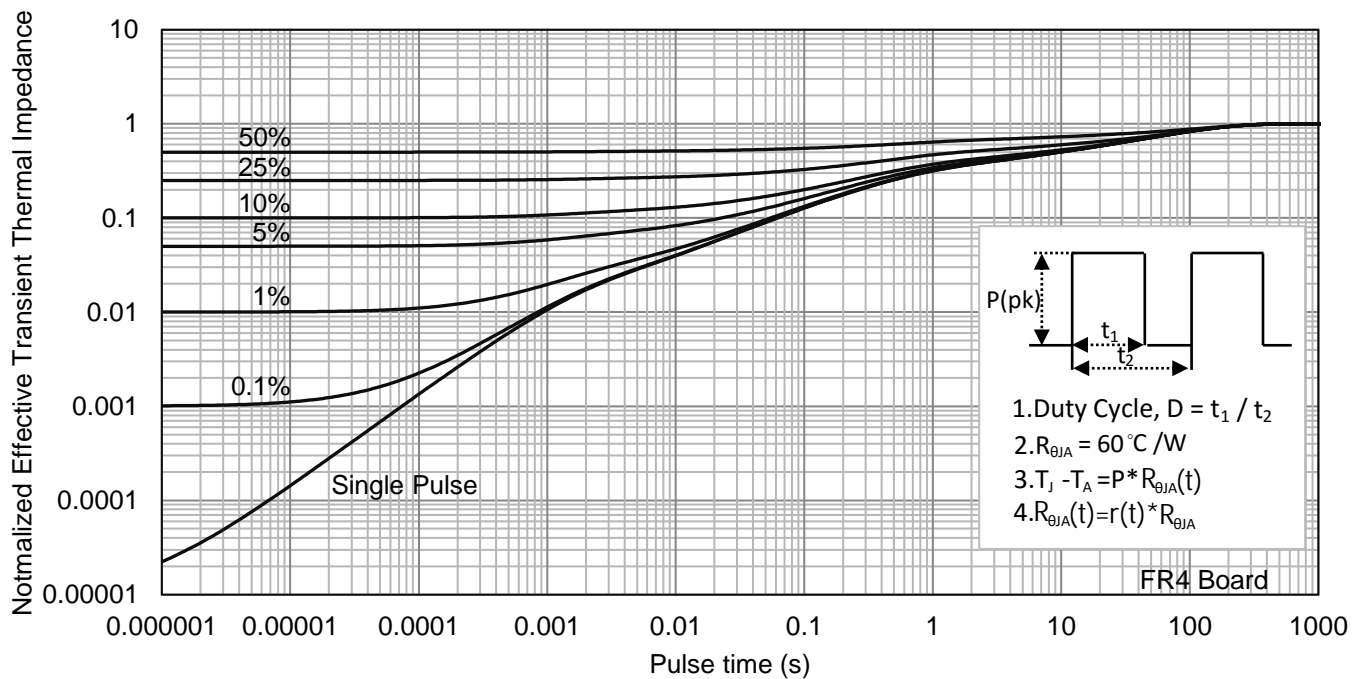
7.ELECTRICAL CHARACTERISTICS CURVES(Con.)



7.ELECTRICAL CHARACTERISTICS CURVES(Con.)

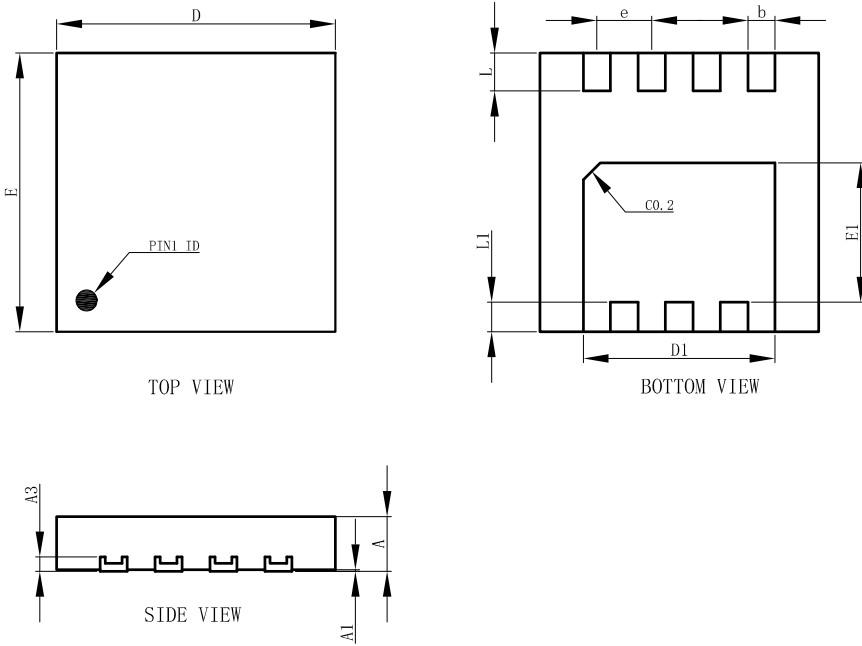


Safe Operating Area



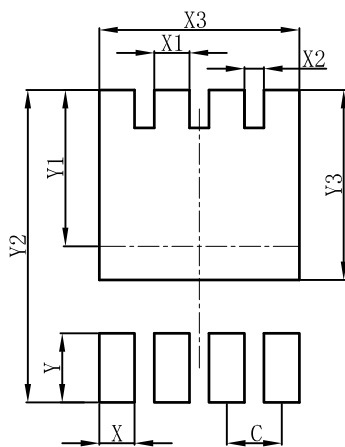
Thermal Response

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.
- 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\(乐山无线电\)](#)