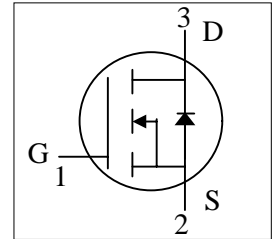
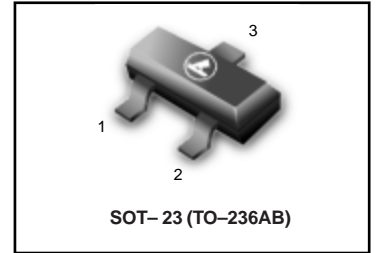


LN3432LT1G

N-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.



2. APPLICATION

- Power Routing
- DC/DC Conversion
- Motor Drives

3. ORDERING INFORMATION

Device	Marking	Shipping
LN3432LT1G	M3C	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	±20	V
Avalanche Current		IAS	9	A
Avalanche energy L=0.1mH		EAS	4	mJ
Continuous Drain Current	TC =25°C	ID	9	A
	TC =70°C		6	
	TA =25°C (Note 1)		6	
	TA =70°C (Note 1)		4	
Pulsed Drain Current (Note 2)		IDM	29	
Power Dissipation	TC =25°C	PD	2.9	W
	TC =70°C		1.6	
	TA =25°C (Note 1)		1.4	
	TA =70°C (Note 1)		0.8	
Operating Junction Temperature		TJ	-55 ~+150	°C
Storage Temperature Range		Tstg	-55 ~+150	

1. 1-in² 2oz Cu PCB board

2.Pulse width limited by maximum junction temperature.

5. THERMAL CHARACTERISTICS

Parameter		Symbol	Limits	Unit
Maximum Junction-to-Ambient(Note 1)	t ≤10s	RθJA	90	°C/W
	Steady State		125	
Maximum Junction-to-Case	Steady State	RθJC	45	

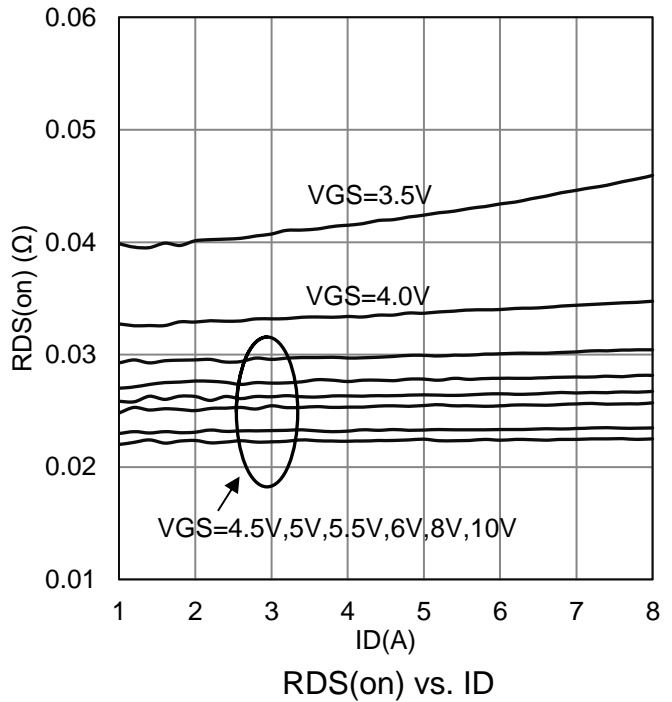
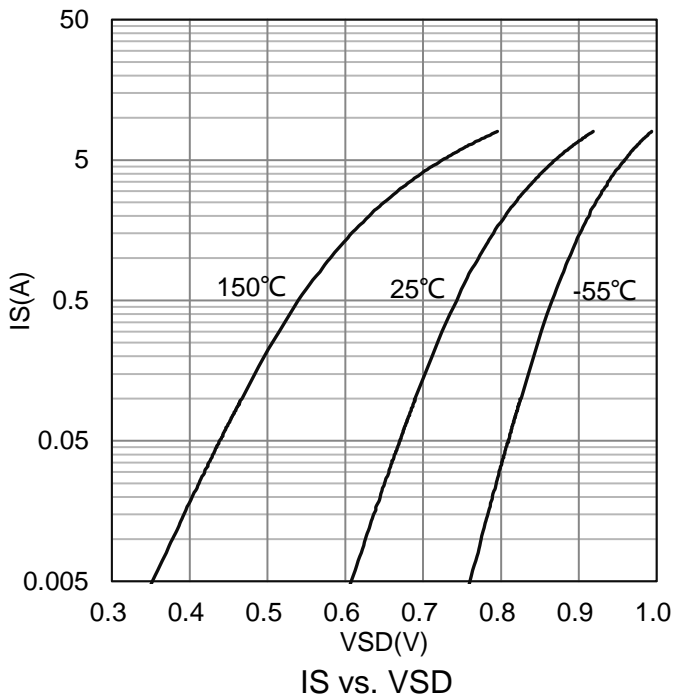
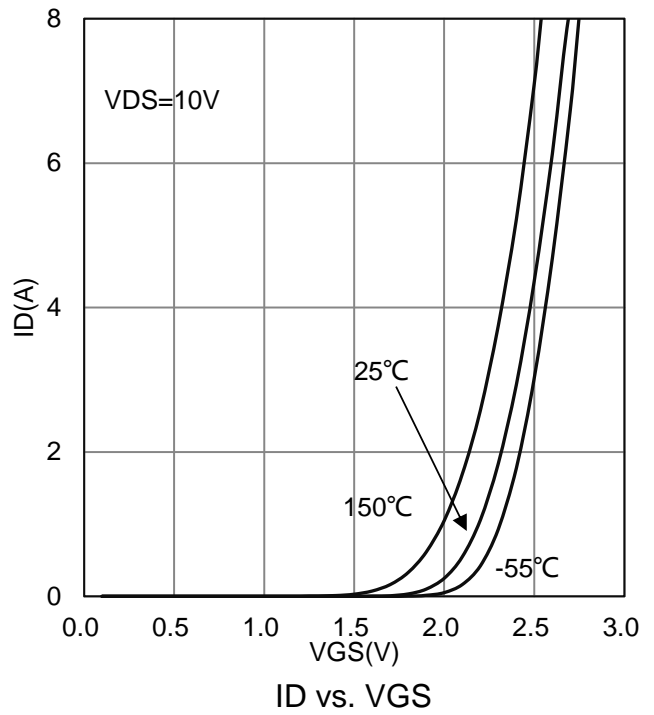
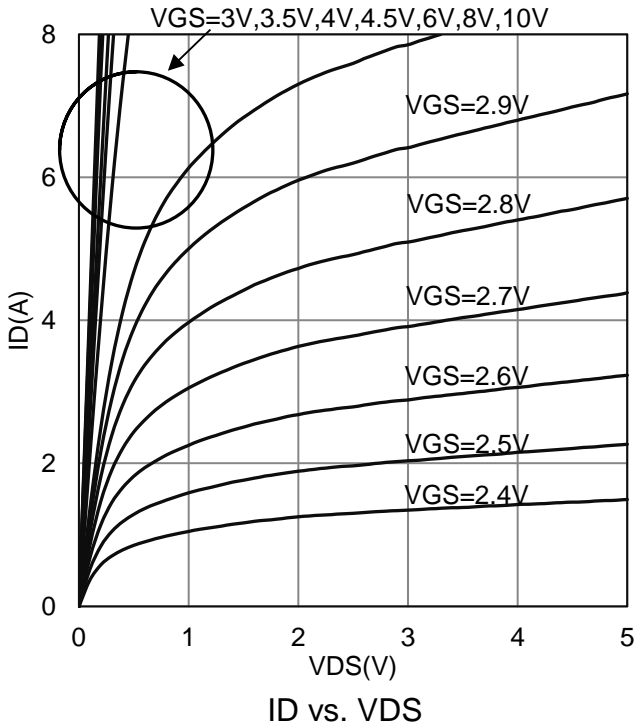
6. ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	Min.	Typ.	Max.	Unit	
Static						
Gate-Source Threshold Voltage (VDS = VGS, ID = 250 μ A)	VGS(th)	1	1.5	3	V	
Gate-Body Leakage (VDS = 0 V, VGS = \pm 20 V)	IGSS	-	-	\pm 100	nA	
Zero Gate Voltage Drain Current (VDS = 24 V, VGS = 0 V)	IDSS	-	-	1	μ A	
Drain-Source On-Resistance(Note 3) (VGS = 10 V, ID = 6 A) (VGS = 4.5 V, ID = 5 A)	RDS(on)	-	22 32	28 42	m Ω	
Diode Forward Voltage(Note 3) (IS = 0.5A, VGS = 0 V)	VSD	-	-	1.3	V	
Dynamic(Note 4)						
Total Gate Charge	(VDS = 15 V, VGS = 4.5 V, ID = 4 A)	Qg	-	5.12	-	nC
Gate-Source Charge		Qgs	-	1.32	-	
Gate-Drain Charge		Qgd	-	2.2	-	
Input Capacitance	(VDS = 15 V, VGS = 0 V, f = 1 Mhz)	Ciss	-	511	-	pF
Output Capacitance		Coss	-	56	-	
Reverse Transfer Capacitance		Crss	-	50.3	-	
Turn-On Delay Time	(VDS = 15 V, RL = 1.9 Ω , ID = 4 A, VGEN = 10 V, RGEN = 6 Ω)	td(on)	-	24	-	ns
Rise Time		tr	-	34	-	
Turn-Off Delay Time		td(off)	-	46	-	
Fall Time		tf	-	44	-	

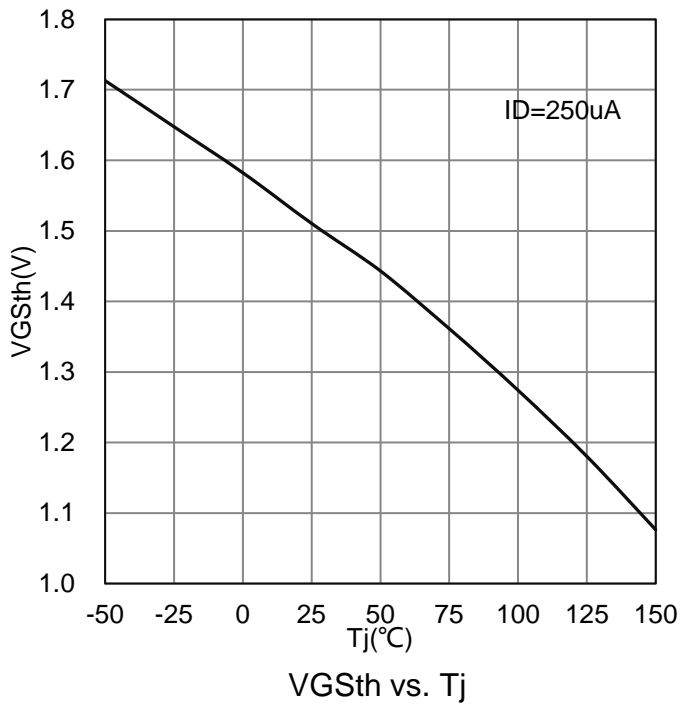
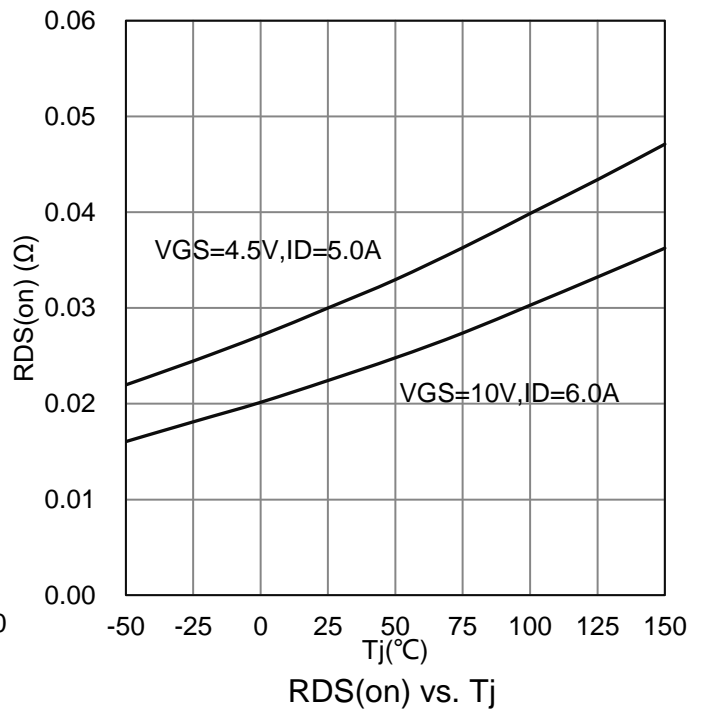
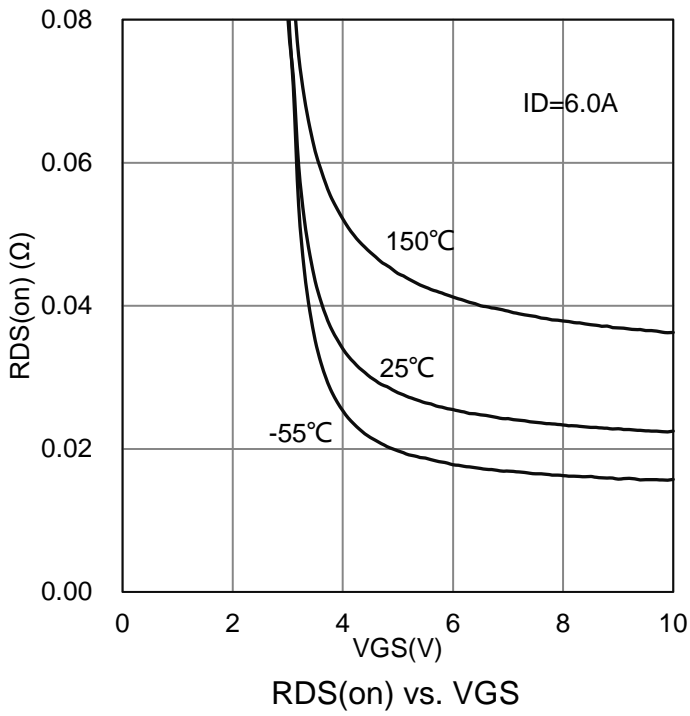
3. Pulse test: PW \leq 300 μ s duty cycle \leq 2%.

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

7. ELECTRICAL CHARACTERISTICS CURVES



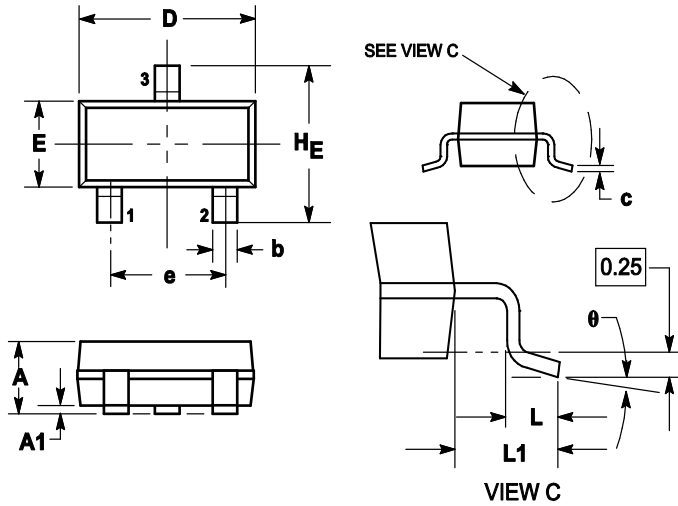
7. ELECTRICAL CHARACTERISTICS CURVES(Con.)



8. OUTLINE AND DIMENSIONS

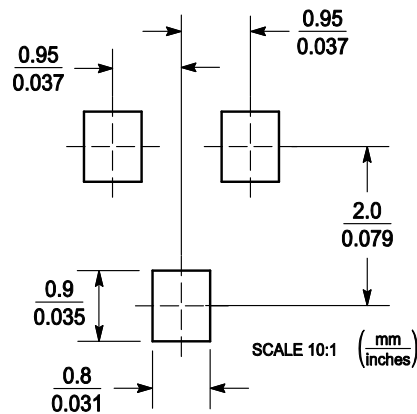
Notes:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.



DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.89	1	1.11	0.035	0.04	0.044
A1	0.01	0.06	0.1	0.001	0.002	0.004
b	0.37	0.44	0.5	0.015	0.018	0.02
c	0.09	0.13	0.18	0.003	0.005	0.007
D	2.80	2.9	3.04	0.11	0.114	0.12
E	1.20	1.3	1.4	0.047	0.051	0.055
e	1.78	1.9	2.04	0.07	0.075	0.081
L	0.10	0.2	0.3	0.004	0.008	0.012
L1	0.35	0.54	0.69	0.014	0.021	0.029
HE	2.10	2.4	2.64	0.083	0.094	0.104
θ	0°	---	10°	0°	---	10°

9. SOLDERING FOOTPRINT



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