

# LPB3408LT1G

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

### 1. FEATURES

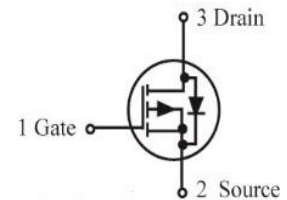
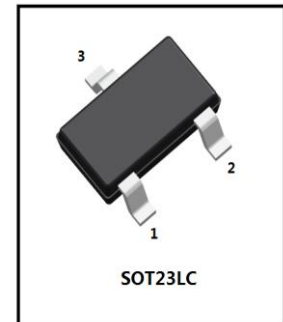
- $V_{DS} = -30V$   
 $R_{DS(ON)} \leq 35m\Omega, V_{GS@-10V}, I_{DS@-7.3A}$   
 $R_{DS(ON)} \leq 48m\Omega, V_{GS@-4.5V}, I_{DS@-5.9A}$
- Low  $R_{DS(ON)}$  trench technology.
- Low thermal impedance.
- Fast switching speed.
- We declare that the material of product compliance with RoHS requirements and Halogen Free.

### 2. APPLICATIONS

- Load Switches
- DC/DC Conversion
- Motor Drives

### 3. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
LPB3408LT1G	A6	3000/Tape&Reel
LPB3408LT3G	A6	10000/Tape&Reel



### 4. MAXIMUM RATINGS( $T_a = 25^\circ C$ )

Parameter	Symbol	Limits	Unit
Drain-Source Voltage	$V_{DS}$	-30	V
Gate-Source Voltage	$V_{GS}$	$\pm 20$	
Continuous Drain Current(Note 1)	$I_D$	-5.5	A
Pulsed Drain Current(Note 2)	$I_{DM}$	-40	
Maximum Power Dissipation(Note 1)	$P_D$	1.4	W
Operating Junction and Storage Temperature Range	$T_J, T_{stg}$	-50~+150	$^\circ C$
Continuous Source Current (Diode Conduction)(Note 1)	$I_S$	3.8	A

### 5. THERMAL CHARACTERISTICS

Parameter	Symbol	Typ.	Max	Unit
Maximum Junction-to-Ambient(Note 1)	$R_{\theta JA}$	-	125	$^\circ C/W$

1. Surface Mounted on 1" x 1" FR4 Board.
2. Pulse width limited by maximum junction temperature.

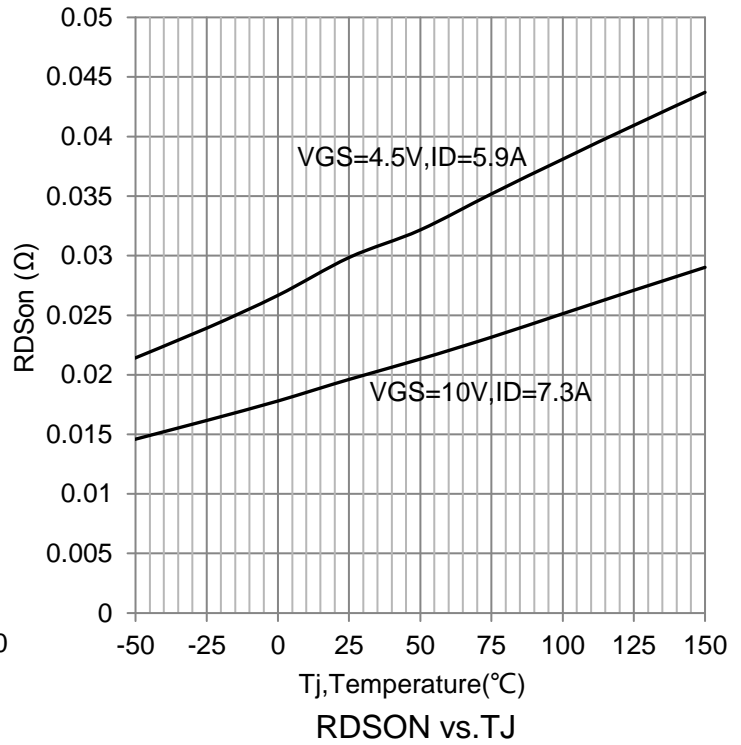
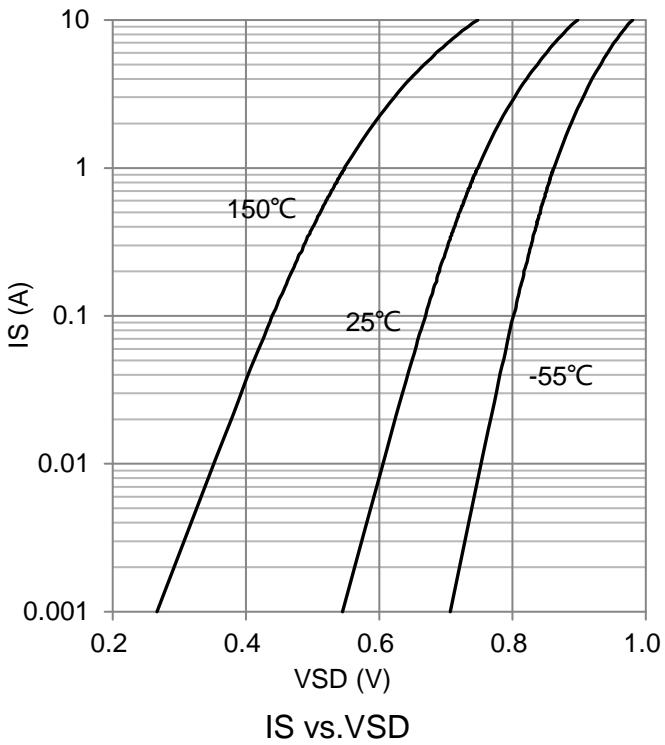
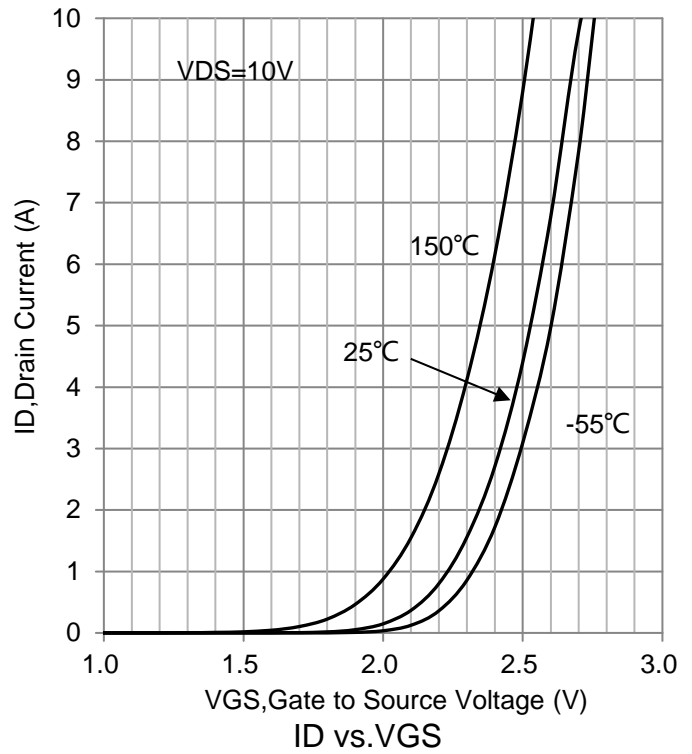
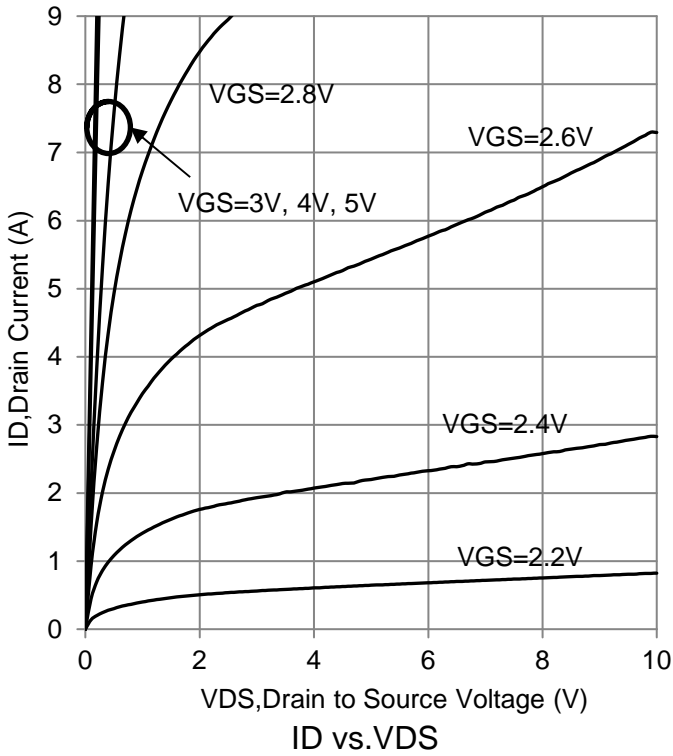
**6. ELECTRICAL CHARACTERISTICS (Ta= 25°C)**

Characteristic	Symbol	Min.	Typ.	Max.	Unit	
Static						
Drain-Source Breakdown Voltage (VGS =0V, ID =-250μA)	V(BR)DSS	-30	-	-	V	
Gate Threshold Voltage (VDS =VGS , ID =-250μA)	VGS(th)	-1	-	-3	V	
Gate Leakage Current (VDS =0V, VGS =± 8V)	IGSS	-	-	±10	μA	
Zero Gate Voltage Drain Current (VDS =-24V, VGS =0V)	IDSS	-	-	-1	μA	
Drain-Source On-Resistance (VGS =-10V, ID = -7.3A) (VGS =-4.5V, ID = -5.9A)	RDS(ON)	-	-	35 48	mΩ	
Diode Forward Voltage(Note 3) (IS =-1A, VGS =0V)	VSD	-	-	-1.5	V	
DYNAMIC(Note 4)						
Total Gate Charge	(VDS = -15 V, VGS = -4.5 V, ID = -7.3 A)	Qg	-	10	-	nC
Gate-Source Charge		Qgs	-	3	-	
Gate-Drain Charge		Qgd	-	3.3	-	
Input Capacitance	(VDS = -15 V, VGS = 0 V, f = 1 MHz)	Ciss	-	1310	-	pF
Output Capacitance		Coss	-	131	-	
Reverse Transfer Capacitance		Crss	-	112	-	

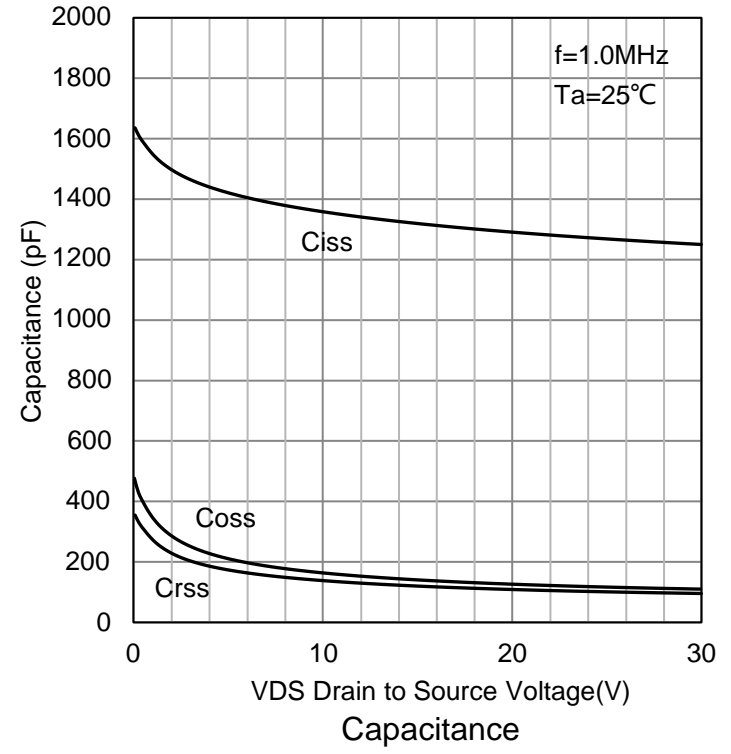
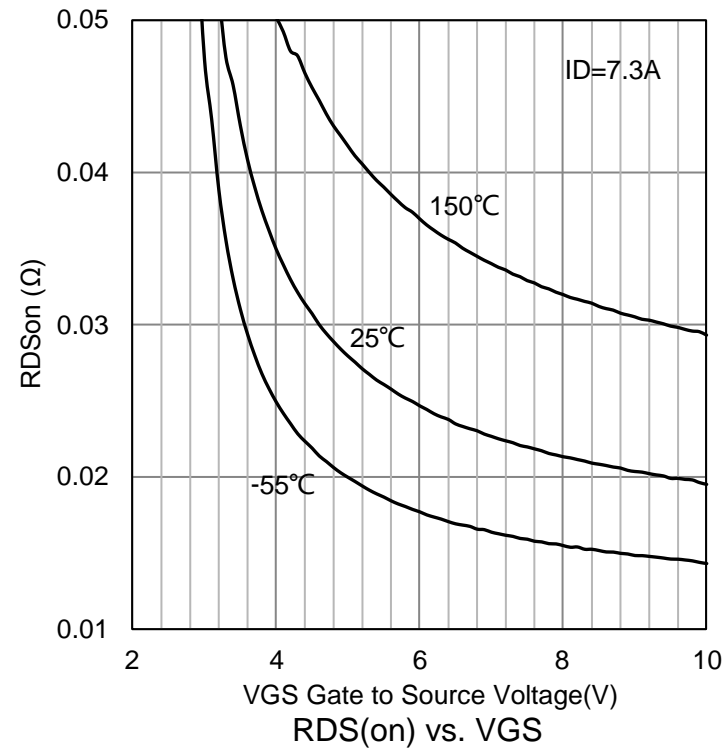
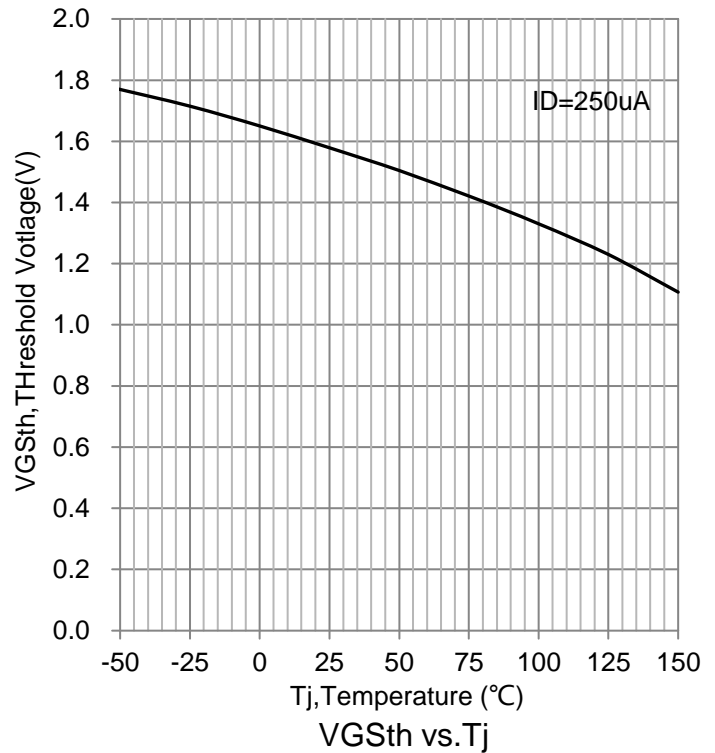
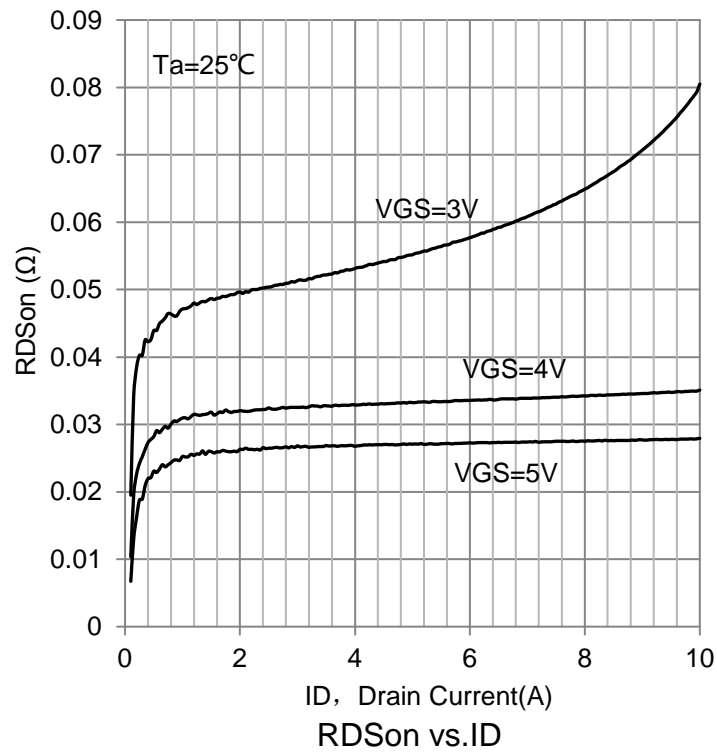
3. Pulse test; pulse width ≤ 300us, duty cycle ≤ 2%.

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

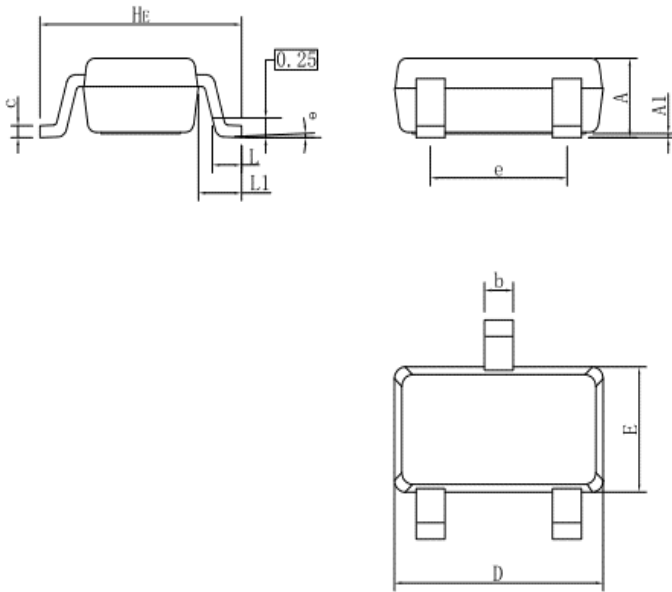
**7. ELECTRICAL CHARACTERISTICS CURVES**



**7. ELECTRICAL CHARACTERISTICS CURVES(Con.)**



### 8. OUTLINE AND DIMENSIONS

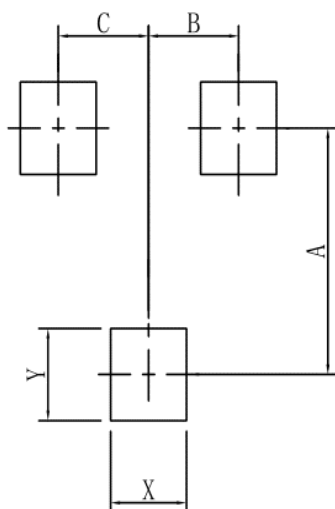


SOT23LC			
DIM	MIN	NOR	MAX
A	0.90	1.00	1.10
A1	0.01	0.06	0.10
b	0.30	0.40	0.50
c	0.10	0.17	0.20
D	2.80	2.90	3.00
E	1.50	1.60	1.70
e	1.80	1.90	2.00
L	0.20	0.40	0.60
L1	0.60REF		
HE	2.60	2.80	3.00
θ	0°	-	10°
All Dimensions in mm			

#### GENERAL NOTES

1. Top package surface finish Ra0.4±0.2um
2. Bottom package surface finish Ra0.7±0.2um
3. Side package surface finish Ra0.4±0.2um

### 9. SOLDERING FOOTPRINT



SOT23LC	
DIM	(mm)
X	0.80
Y	0.90
A	2.40
B	0.95
C	0.95