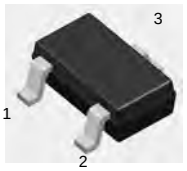
JXND ELECTRONICS CO.,LTD

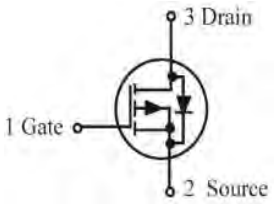
20V P-Channel Enhancement-Mode MOSFET
PB3443LT1G, S-PB3443LT1G

1. FEATURES

- VDS = -20V
- RDS(ON),VGS@-4.5V,IDS@-4.7A=70mΩ
- RDS(ON),VGS@-2.5V,IDS@-1.0A=110mΩ
- We declare that the material of product compliance with RoHS requirements and Halogen Free.
- S- prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable.
- ESD rating of class 0 (<100V)per Human Body Model



SOT23LC



2. APPLICATIONS

- Advanced trench process technology
- High density cell design for ultra low on-resistance.

3. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
PB3443LT1G	P34	3000/Tape&Reel
PB3443LT3G	P34	10000/Tape&Reel

4. MAXIMUM RATINGS(Ta = 25ºC)

Parameter	Symbol	Limits	Unit
Drain–Source Voltage	VDSS	-20	V
Gate–to–Source Voltage – Continuous	VGS	±12	V
Drain Current – Continuous TA = 25°C – Pulsed (Note 1)	 ID IDM	 -4.7 -20	A
Continuous Source Current (Note 2)	IS	-3	A
Pulsed Source Current (Note 2)	ISM	-12	A

5. THERMAL CHARACTERISTICS

Parameter	Symbol	Limits	Unit
Power Dissipation	PD	1.1	W
Thermal Resistance, Junction–to–Ambient(Note 2)	RΘJA	110	ºC/W
Junction and Storage temperature	TJ,Tstg	−55~+150	°C

1.Repetitive Rating: Pulse width limited by the maximum junction temperature.
2.1-in² 2oz Cu PCB board.

6. ELECTRICAL CHARACTERISTICS (Ta= 25℃)

OFF CHARACTERISTICS

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Drain–Source Breakdown Voltage (VGS = 0, ID = -250μA)	VBRDSS	-20	-	-	V
Zero Gate Voltage Drain Current (VGS = 0, VDS = -20 V)	IDSS	-	-	-1	μA
Gate–Body Leakage Current, Forward (VGS = 12 V)	IGSSF	-	-	100	nA
Gate–Body Leakage Current, Reverse (VGS = - 12 V)	IGSSR	-	-	-100	nA

ON CHARACTERISTICS (Note 3)

Forward Transconductance (VDS = -10V, ID = -4.7A)	gfs	-	8	-	S
Gate Threshold Voltage (VDS = VGS, ID = -250μA)	VGS(th)	-0.6	-0.85	-1.4	V
Static Drain–Source On–State Resistance	RDS(on)				mΩ
(VGS = -4.5V, ID = -4.7A)		-	58	70	
(VGS = -2.7V, ID = -3.8A)		-	63	90	
(VGS = -2.5V, ID = -1.0A)		-	75	110	

SWITCHING CHARACTERISTICS

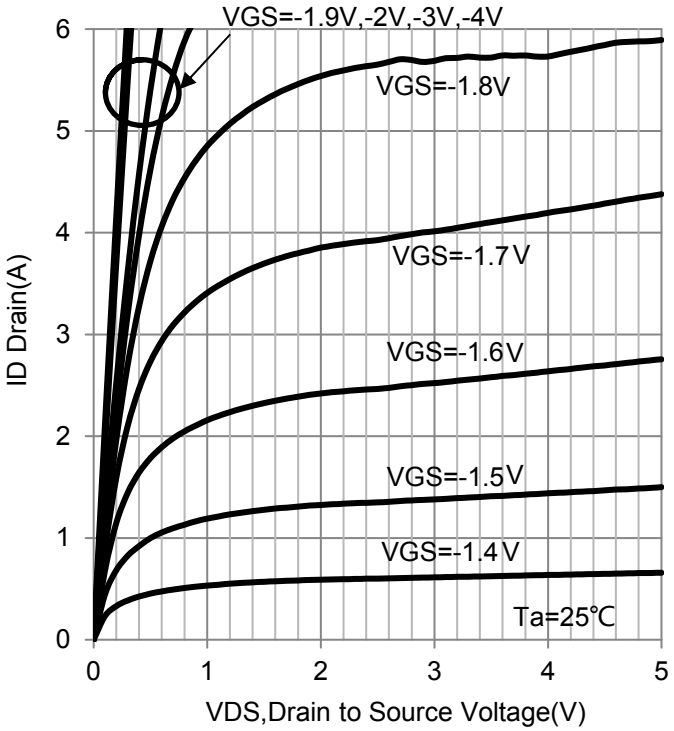
Turn-On Delay Time	(VDD = -10V, RD=10Ω ID = -1A, VGS = -4.5V, RG = 6Ω)	td(on)	-	22	35	ns
Rise Time		tr	-	35	55	
Turn-Off Delay Time		td(off)	-	45	70	
Fall Time		tf	-	25	40	

SOURCE–DRAIN DIODE CHARACTERISTICS

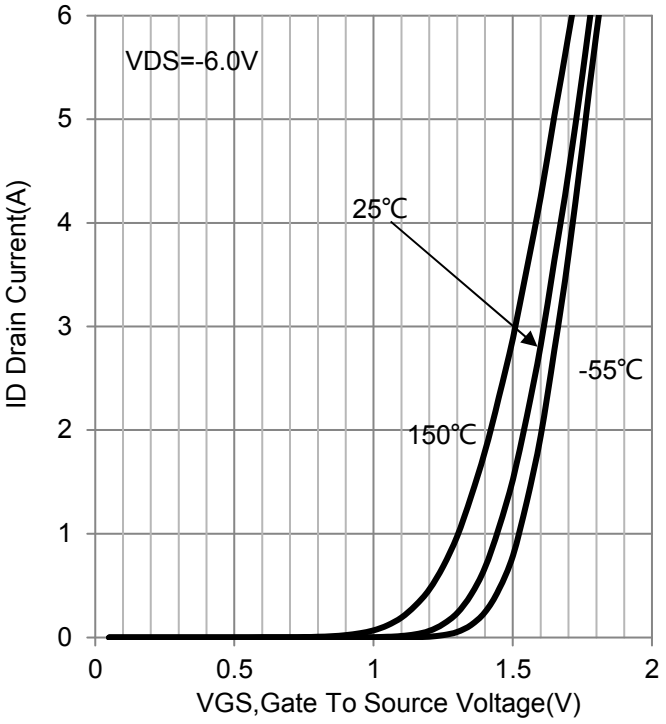
Forward Voltage (VGS = 0 V, ISD = -1.7 A)	VSD	-	-	-1.2	V

3.Pulse Test: Pulse Width ≤300 μs, Duty Cycle ≤2.0%.

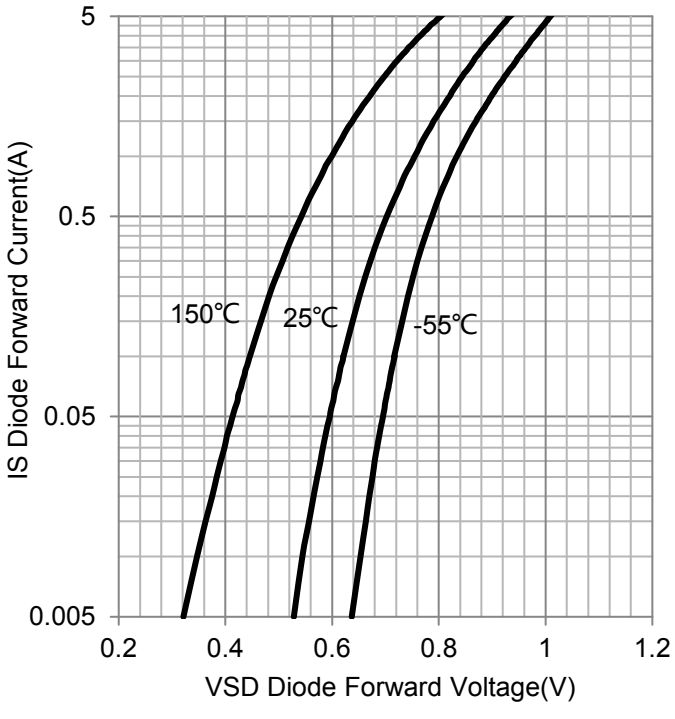
7. ELECTRICAL CHARACTERISTICS CURVES



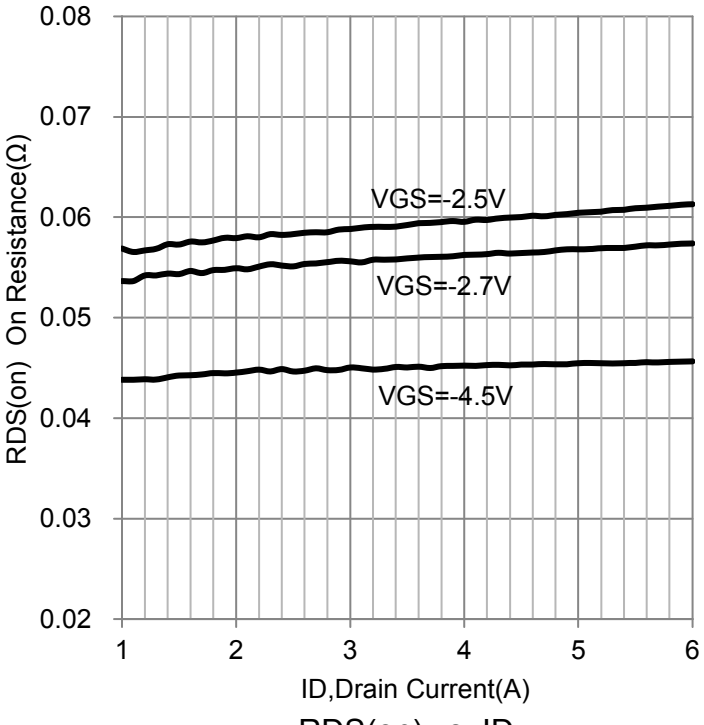
ID vs. VDS



ID vs. VGS

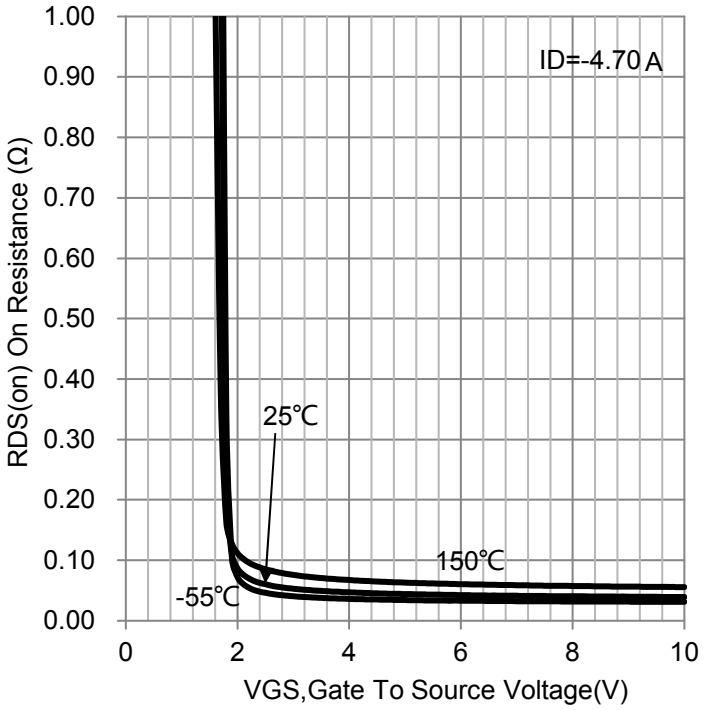


IS vs. VSD

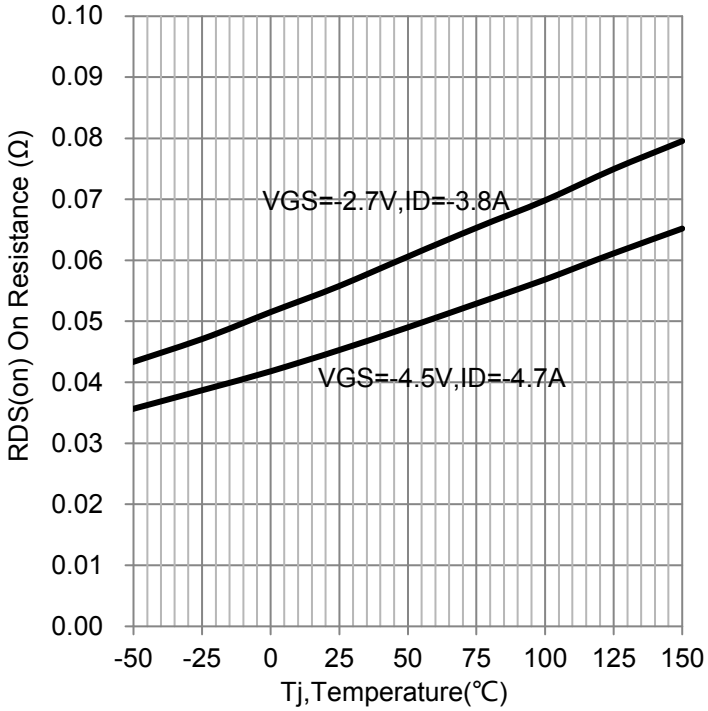


RDS(on) vs. ID

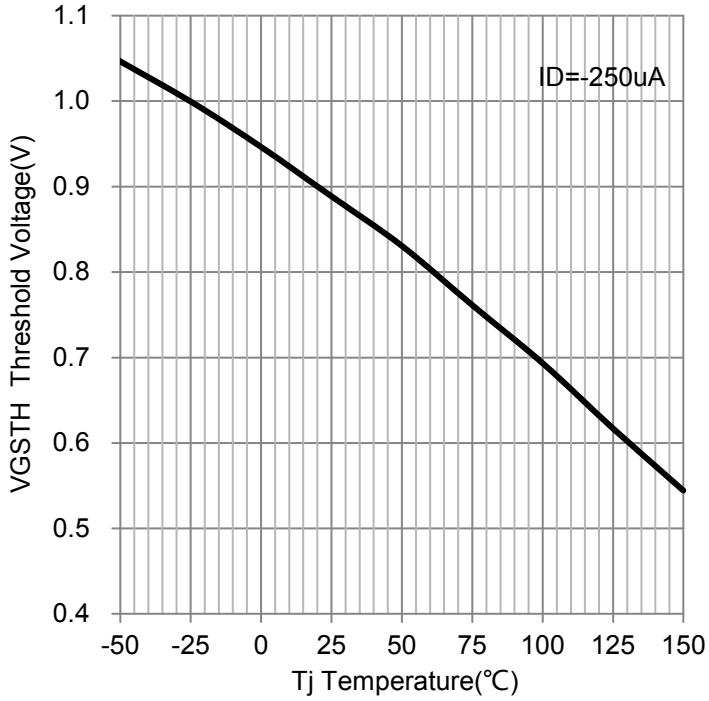
7. ELECTRICAL CHARACTERISTICS CURVES(Con.)



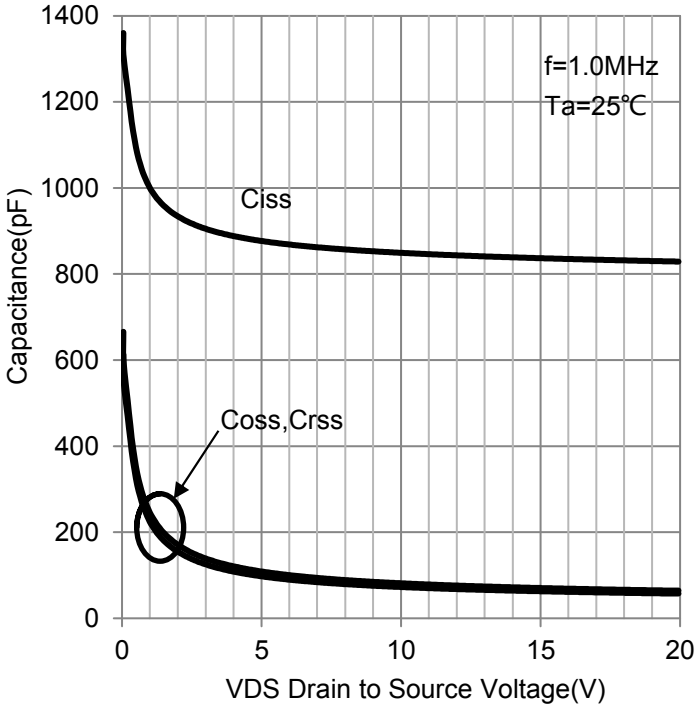
RDS(on) vs. VGS



RDS(on) vs. Tj

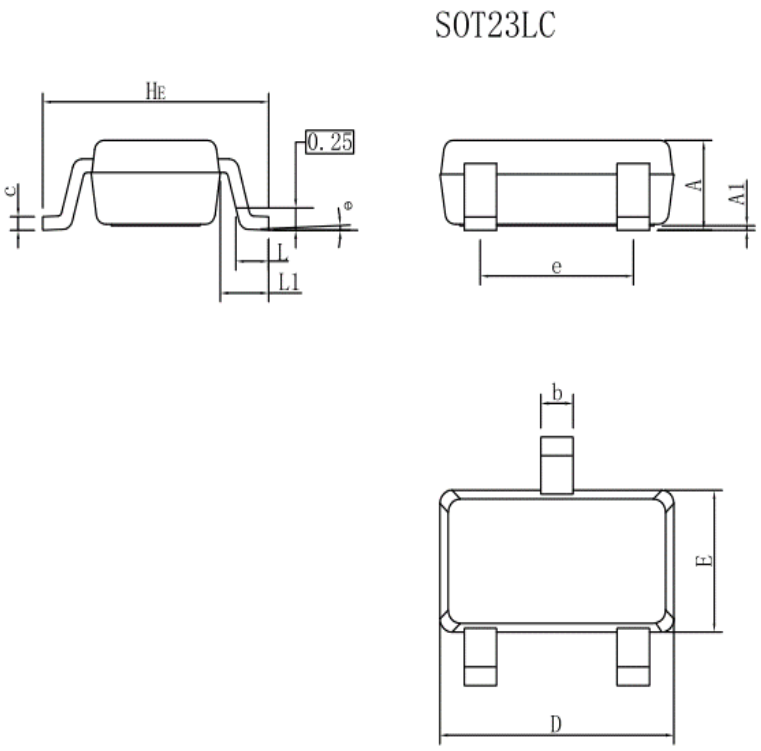


VGSTH vs. Tj



Capacitance

8.OUTLINE AND DIMENSIONS



SOT23-LC			
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			

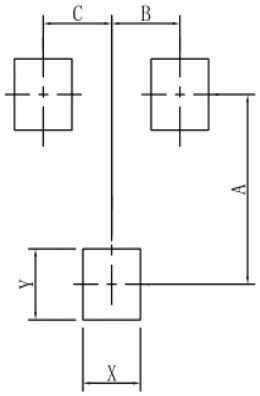
GENERAL NOTES

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



SOT23-LC	
DIM	(mm)
X	0.80
Y	0.90
A	2.40
B	0.95
C	0.95