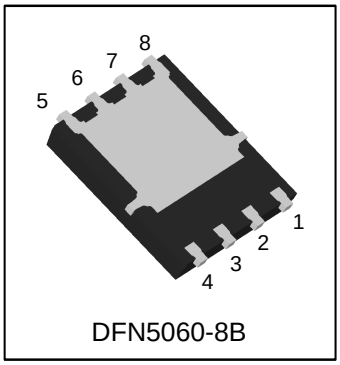
LP73035DT1WG

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



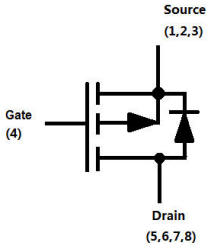
DFN5060-8B

1. FEATURES

- Low RDS(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 RESISTOR VALUES

Device	Marking	Shipping
LP73035DT1WG	LP73035	3000/Tape&Reel

4. MAXIMUM RATINGS(Ta = 25ºC)

Parameter		Symbol	Limits	Unit
Drain−to−Source Voltage		VDSS	-30	V
Gate−to−Source Voltage		VGS	± 20	V
Avalanche Current		IAS	55	A
Avalanche energy L=0.1mH		EAS	151.25	mJ
Continuous Drain Current(Note 1)	TA =25°C	ID	-30	A
	TA =70°C		-23	
	TC =25°C		-105	
	TC =70°C		-80	
Pulsed Drain Current (Note 2)	TA =25°C	IDM	-120	
Power Dissipation(Note 1)	TA =25°C	PD	5	W
	TC =25°C		50	
Operating Junction Temperature		TJ	−55 ~+150	ºC
Storage Temperature Range		Tstg	−55 ~+150	

5. THERMAL CHARACTERISTICS

Parameter	Symbol	Max	Unit
Junction-to-Ambient(Note 1)	RθJA	50	℃/W
Junction-to-Case	RθJC	2.5	

1.Surface mounted on "1.5 x 1.5" FR4 board using 1 sq in pad, 2 oz Cu.

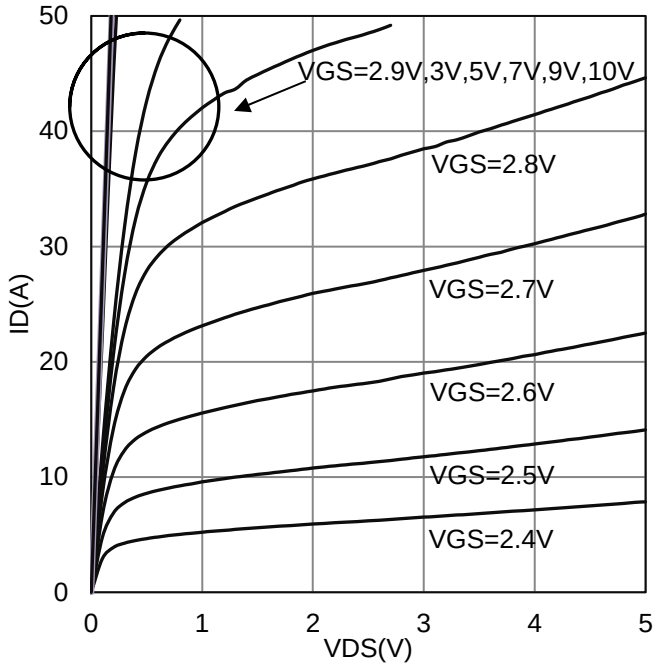
2.Pulse width limited by maximum junction temperature

6. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

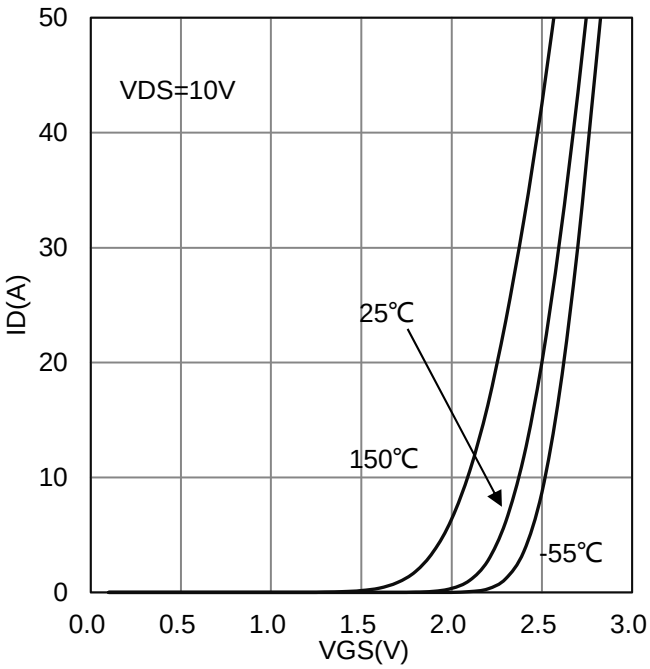
Characteristic		Symbol	Min.	Typ.	Max.	Unit
Static						
Drain-Source Breakdown Voltage (VGS=0 , ID = -250 uA)		V(BR)DSS	-30	-	-	V
Gate-Source Threshold Voltage (VDS = VGS , ID = -250 uA)		VGS(th)	-1	-	-2.5	V
Gate-Body Leakage (VDS = 0 V, VGS = ± 20 V)		IGSS	-	-	± 100	nA
Zero Gate Voltage Drain Current (VDS = -30 V, VGS = 0 V)		IDSS	-	-	-1	μA
Drain-Source On-Resistance(Note 3) (VGS = -10 V, ID = -15 A) (VGS = -4.5 V, ID = -15 A)		RDS(on)	- -	- -	3.7 5	mΩ
Diode Forward Voltage(Note 3) (IS = -2A, VGS = 0 V)		VSD	-	-	-1.2	V
Dynamic(Note 4)						
Total Gate Charge	(VDS = -24 V, VGS = -10 V,ID = -10 A)	Qg	-	166	-	nC
Gate-Source Charge		Qgs	-	21	-	
Gate-Drain Charge		Qgd	-	35	-	
Input Capacitance	(VDS = -25 V, VGS = 0 V, f = 1 MHz)	Ciss	-	8522	-	pF
Output Capacitance		Coss	-	993	-	
Reverse Transfer Capacitance		Crss	-	770	-	
Turn-On Delay Time	(VDS=-15 V, RL=1.5 Ω,ID=-10A,VGEN=-10 V,RGEN=5 Ω)	td(on)	-	17	-	ns
Rise Time		tr	-	61	-	
Turn-Off Delay Time		td(off)	-	200	-	
Fall Time		tf	-	113	-	
Gate-Resistance (VDS=0V,VGS=0V,f=1.0MHz)		Rg	-	3.6	-	Ω

3.Pulse test: PW≤ 300μs duty cycle ≤ 2%.

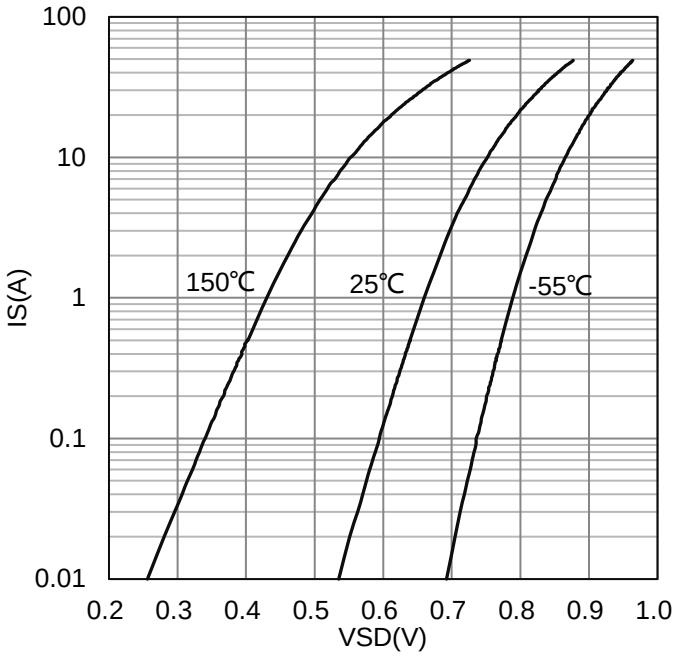
7. ELECTRICAL CHARACTERISTICS CURVES



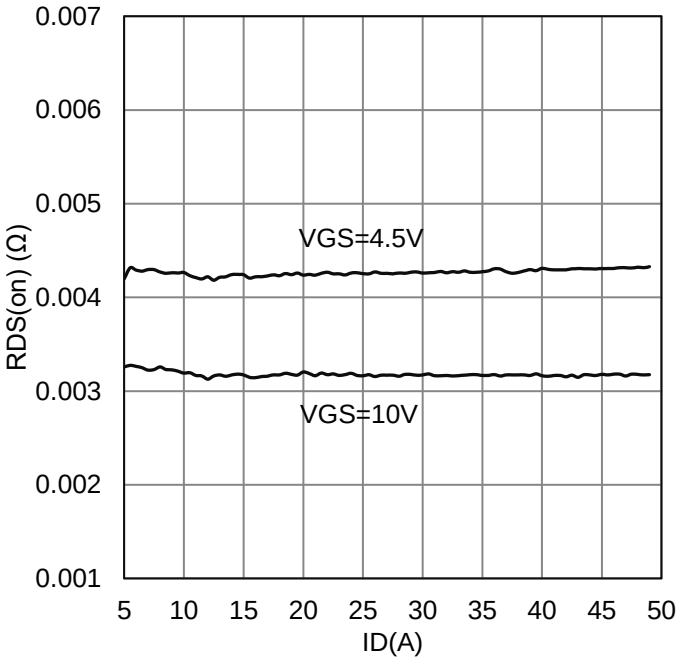
ID vs. VDS



ID vs. VGS

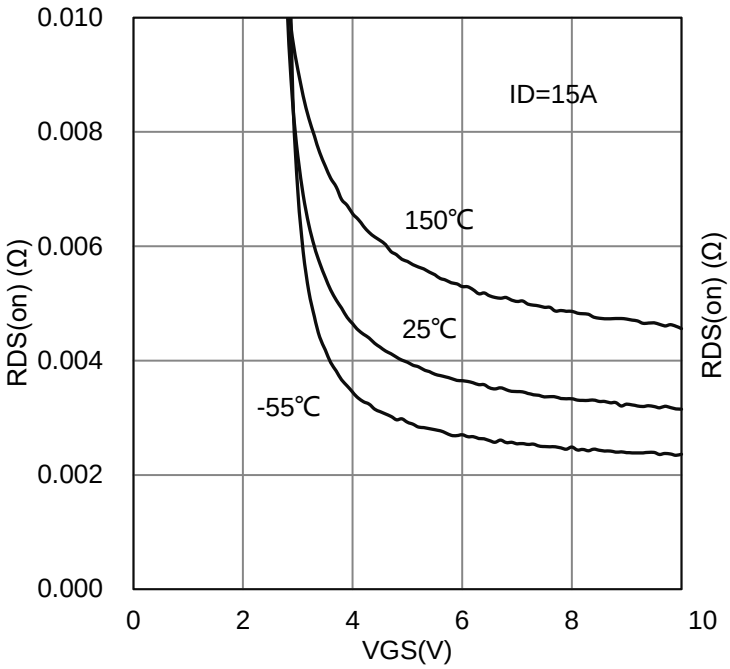


IS vs. VSD

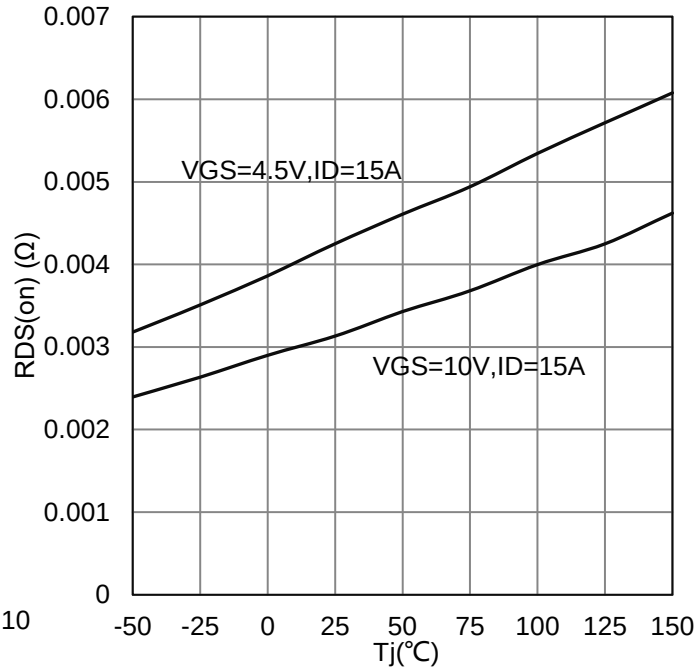


RDS(on) vs. ID

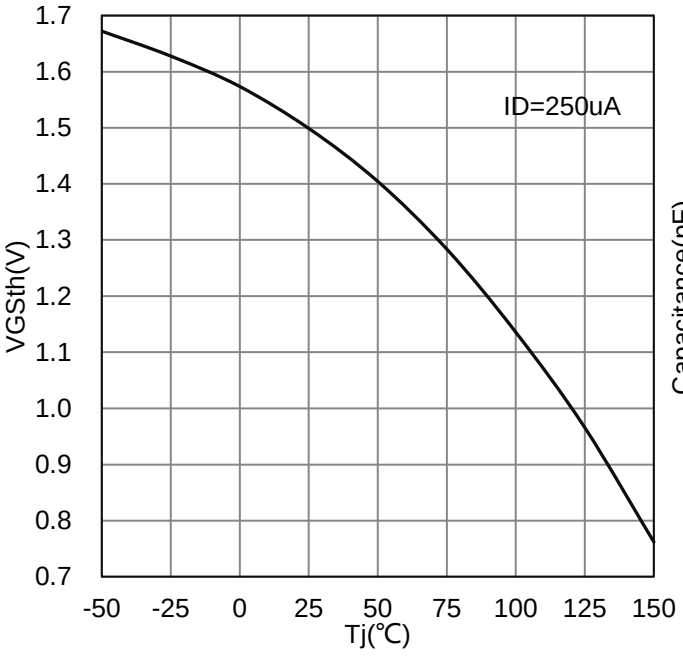
7. ELECTRICAL CHARACTERISTICS CURVES(Con.)



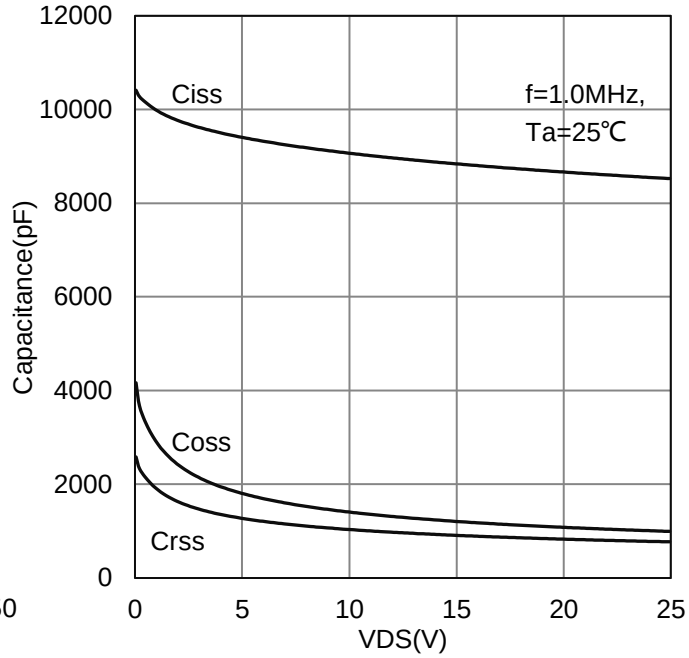
RDS(on) vs. VGS



RDS(on) vs. Tj

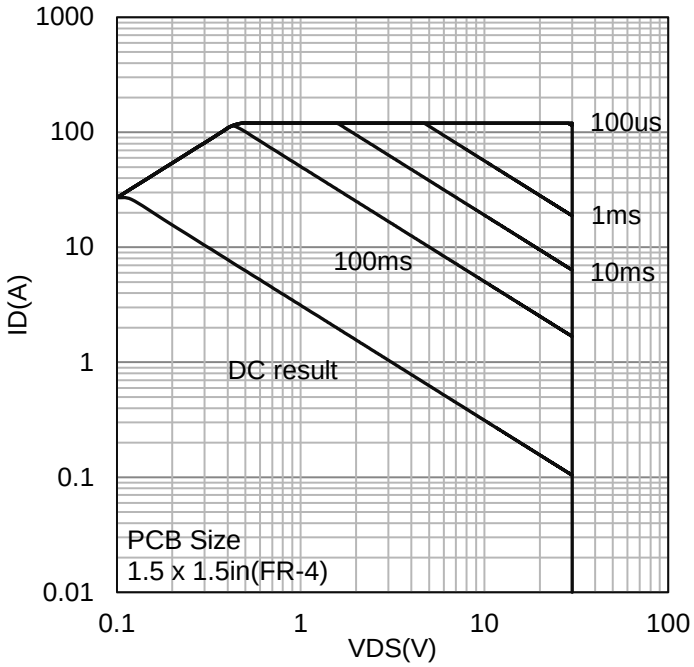


VGSth vs. Tj



Capacitance

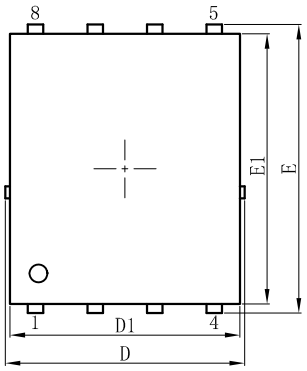
7. ELECTRICAL CHARACTERISTICS CURVES(Con.)



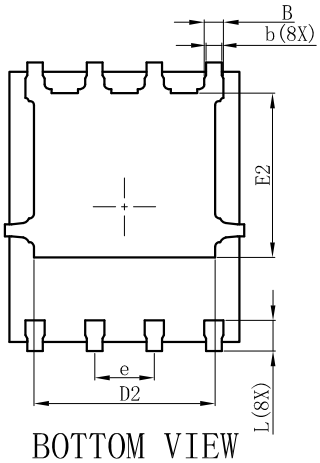
Safe Operating Area

7.OUTLINE AND DIMENSIONS

DFN5060-8B

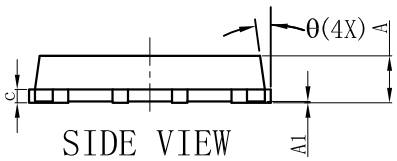


TOP VIEW



BOTTOM VIEW

DFN5060-8B			
DIM	MIN	NOR	MAX
A	0.90	1.00	1.10
A1	0.00	0.02	0.05
E	6.00	6.15	6.30
E1	5.66	5.76	5.86
E2	3.40	3.50	3.60
D	4.95	5.10	5.25
D1	4.80	4.90	5.00
D2	3.76	3.86	3.96
b	0.30	0.35	0.40
B	0.36	0.41	0.46
L	0.56	0.66	0.76
e	1.27BSC		
c	0.254REF.		
θ	0 °	-	12°
All Dimensions in mm			

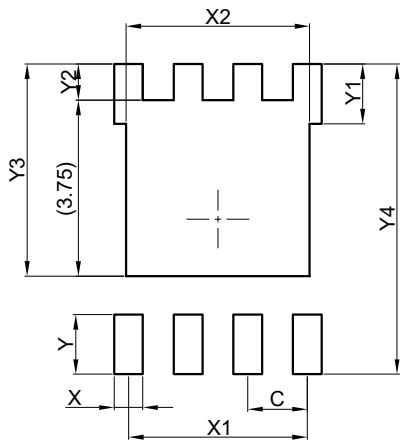


SIDE VIEW

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
4. Protrusion or Gate Burrs shall not exceed 0.05mm per side.
5. Offcenter Max0.038mm; Mismatch Max 0.038mm.

8.SOLDERING FOOTPRINT



DFN5060-8B	
DIM	(mm)
C	1.27
X	0.61
X1	3.81
X2	3.91
Y	1.27
Y1	1.27
Y2	0.77
Y3	4.52
Y4	6.61

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