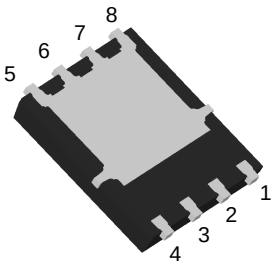
S-LN7462ADT1WG

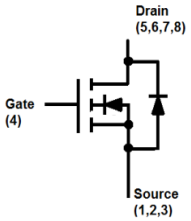
60V N-Channel MOSFET



DFN5060-8B

1. FEATURES

- Improved dv/dt capability
- Fast switching
- 100% EAS Guaranteed
- 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.



2. APPLICATIONS

- Networking
- Load Switch
- LED applications
- Quick Charger

3. DEVICE MARKING AND RESISTOR VALUES

Device	Marking	Shipping
S-LN7462ADT1WG	LN7462A	3000/Tape&Reel

4. MAXIMUM RATINGS(Ta = 25ºC)

Parameter		Symbol	Limits	Unit
Drain-to-Source Voltage		VDS	60	V
Gate-to-Source Voltage		VGS	+20/-20	V
Continuous Drain Current	TC=25℃	ID	90	A
	TC=100℃		55	A
Pulsed Drain Current(Note 1)	TC=25℃	IDM	360	A
Power Dissipation	TC=25℃	PD	104	W
	TA=25℃		2.5	W
Avalanche Current		IAS	22	A
Avalanche energy L=0.1mH		EAS	24.2	mJ
Operating Junction and Storage Temperature Range		Tj/Tstg	-50~+150	℃

1.Repetitive Rating : Pulsed width limited by maximum junction temperature.

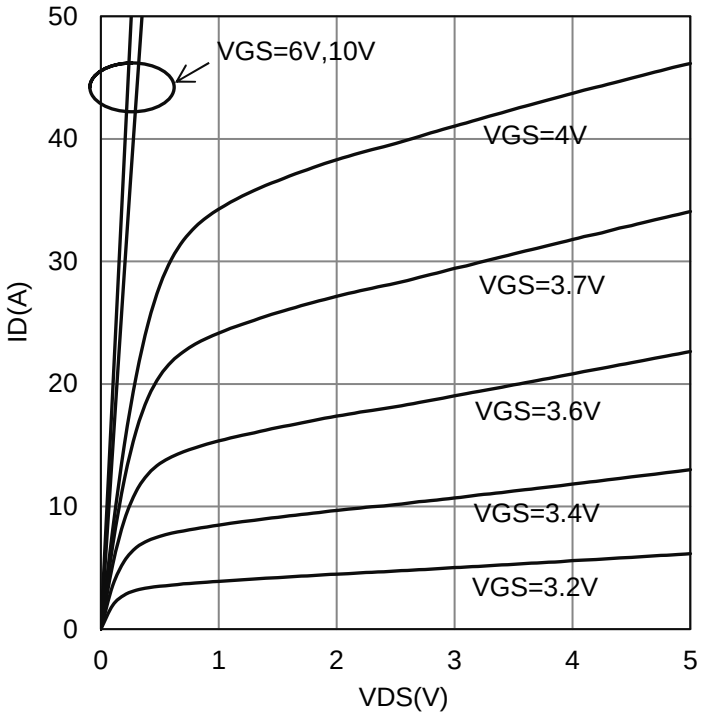
5. THERMAL CHARACTERISTICS

Parameter		Symbol	Max	Unit
Junction-to-Ambient	t ≤ 10s	RθJA	35	℃/W
	Steady-State		55	
Junction-to-Case		RθJC	2.5	

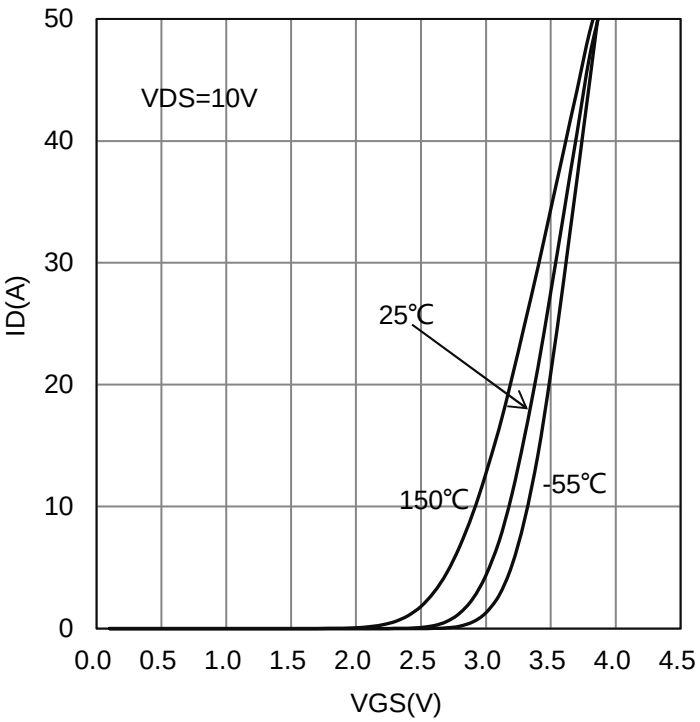
6. ELECTRICAL CHARACTERISTICS (Ta= 25ºC)

Characteristic		Symbol	Min.	Typ.	Max.	Unit
Drain to Source Breakdown Voltage (VGS =0V, ID =250μA)		VDSS	60	-	-	V
Drain-to-Source Leakage Current (VDS =60V,VGS =0V,TJ =25℃)		IDSS	-	-	1	μA
Gate-Body leakage current (VDS =0V, VGS = ±20V)		IGSS	-	-	±100	nA
Gate Threshold Voltage (VDS = VGS , ID = 250μA)		VGS(TH)	1.2	1.9	3	V
Drain-to-Source On-Resistance (VGS =10V,ID =15A) (VGS =4.5V,ID =12A)		RDS(ON)	- -	4.5 6.5	5.7 10	mΩ
Total Gate Charge	(VDS =48V,VGS =10V,ID =5A)	Qg	-	36	-	nC
Gate to Source Charge		Qgs	-	5	-	
Gate to Drain Charge		Qgd	-	12	-	
Turn-on Delay Time	(VDD =30V,VGS =10V,RG =6 Ω ,ID =1A)	td(ON)	-	22	-	nS
Rise Time		tr	-	16.5	-	
Turn-Off Delay Time		td(OFF)	-	48	-	
Fall Time		tf	-	78	-	
Input Capacitance	(VDS =25V,VGS =0V,f=1MHz)	Ciss	-	1852	-	pF
Output Capacitance		Coss	-	921	-	
Reverse Transfer Capacitance		Crss	-	86	-	
Gate Resistance (VDS=0V,VGS=0V,f=1.0MHz)		Rg	-	0.9	-	Ω
Diode Forward Voltage (VGS =0V,IS =1A,TJ =25℃)		VSD	-	-	1	V
Continuous Source Current (VG =VD =0V , Force Current)		IS	-	-	33	A
Pulsed Source Current (VG =VD =0V , Force Current)		ISM	-	-	66	A

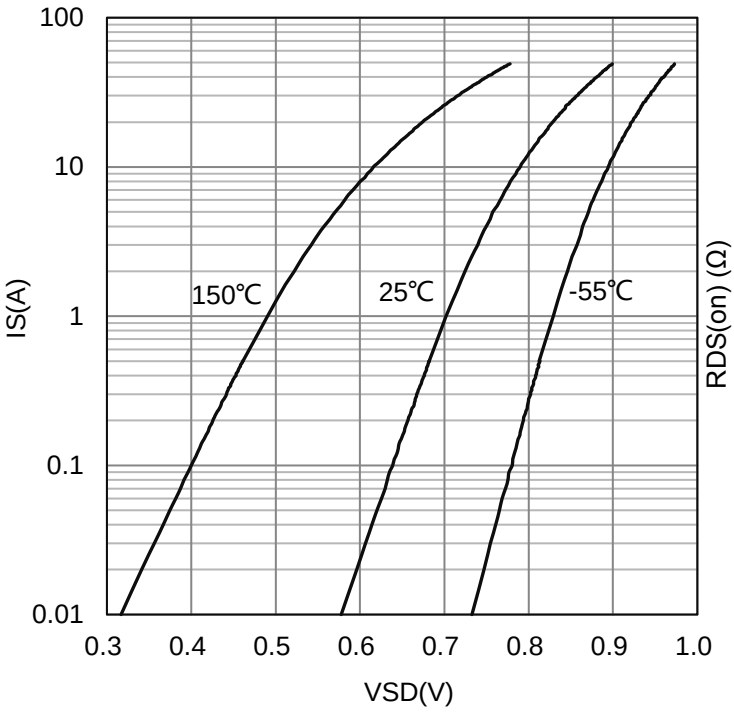
7.ELECTRICAL CHARACTERISTICS CURVES



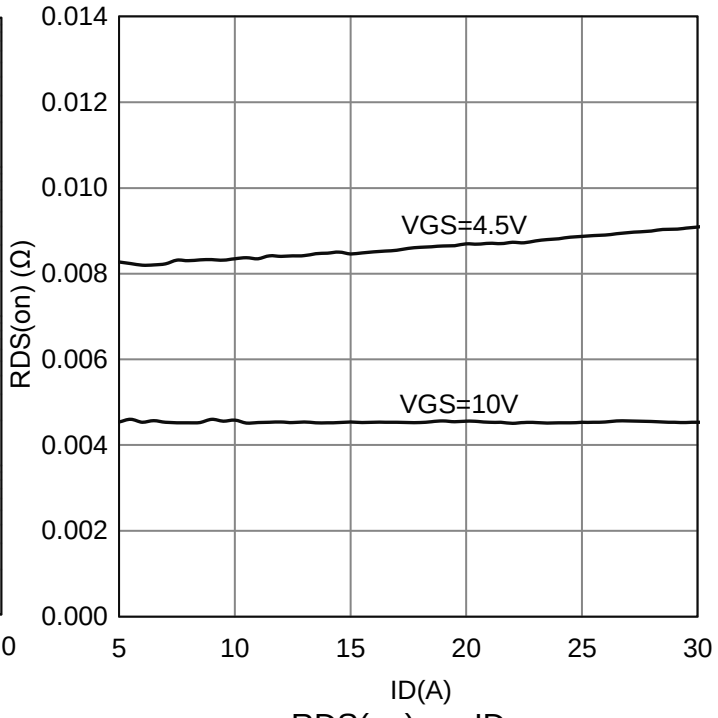
ID vs. VDS



ID vs. VGS

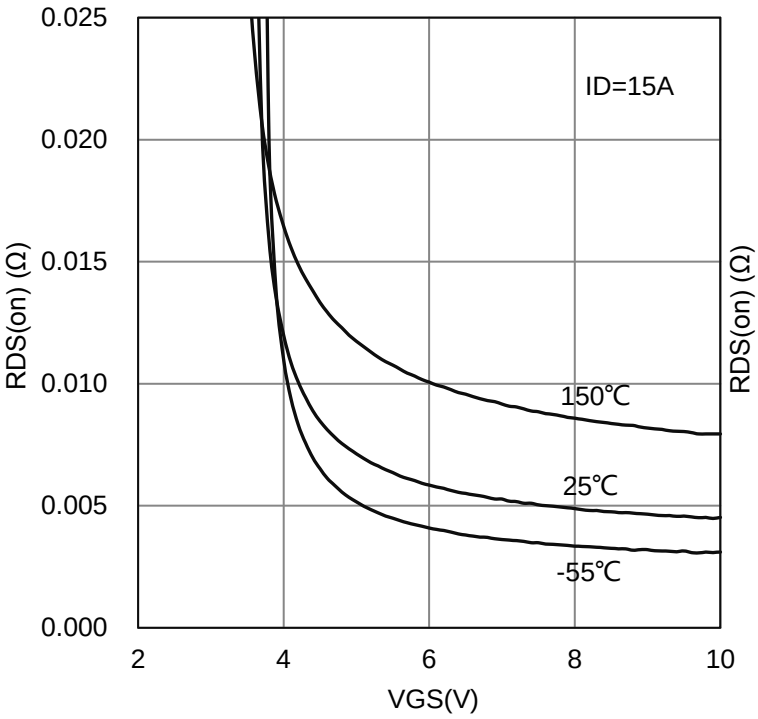


IS vs. VSD

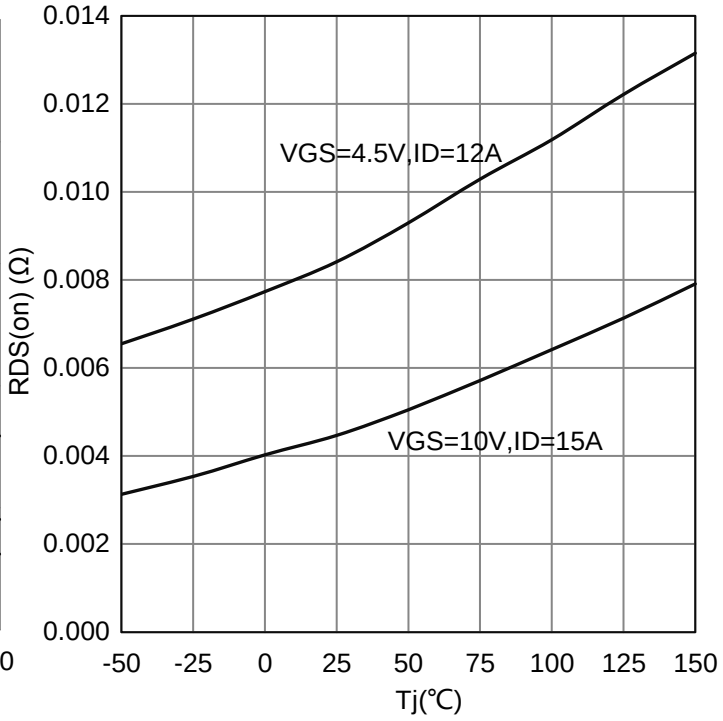


RDS(on) vs. ID

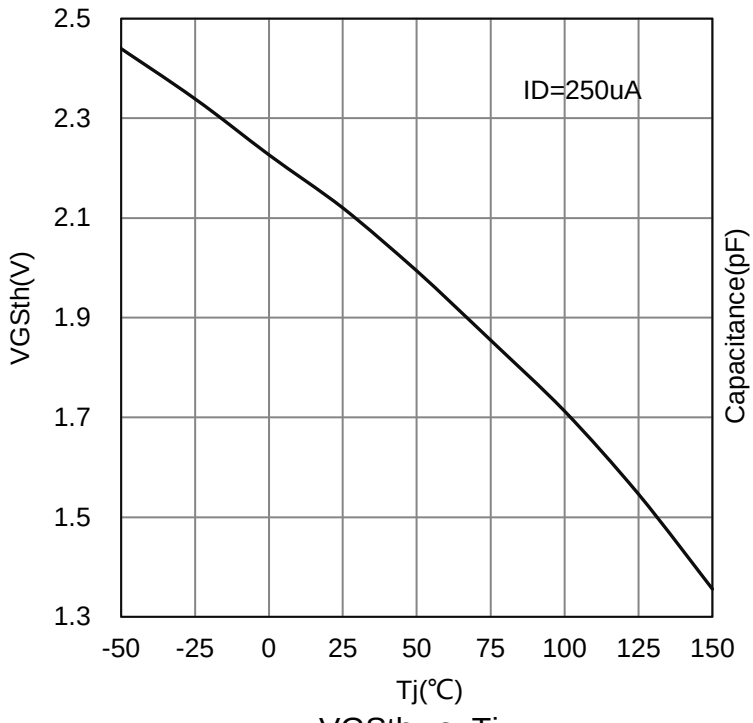
7.ELECTRICAL CHARACTERISTICS CURVES(Con.)



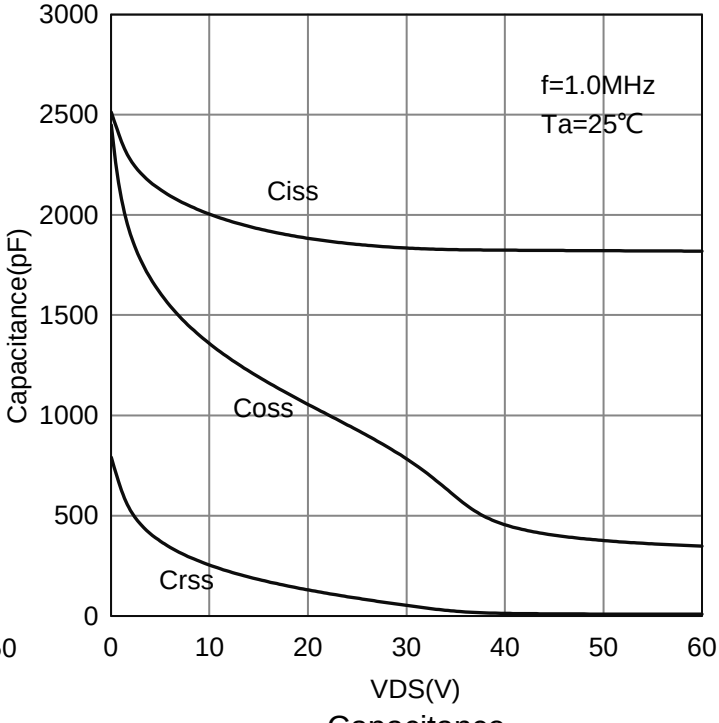
RDS(on) vs. VGS



RDS(on) vs. Tj



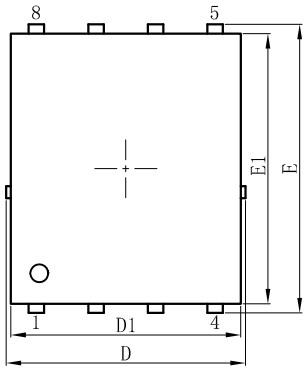
VGSth vs. Tj



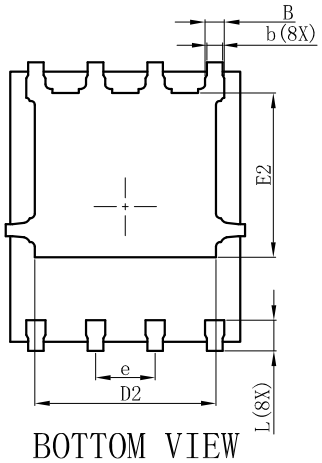
Capacitance

8.OUTLINE AND DIMENSIONS

DFN5060-8B

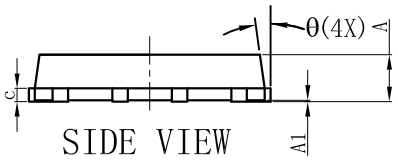


TOP VIEW



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			

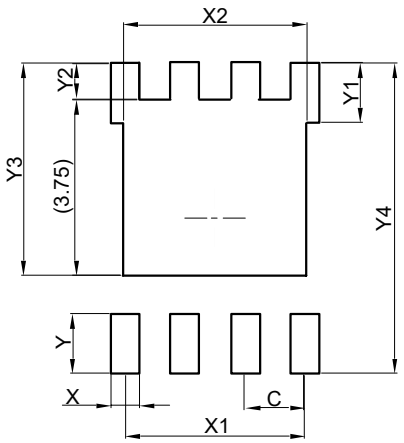


SIDE VIEW

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.

9.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