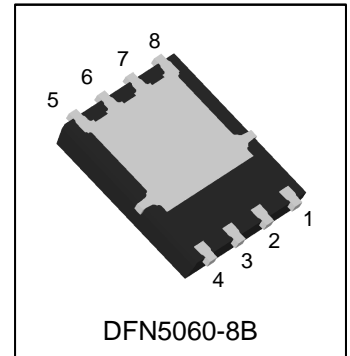


# LN7460DT1WG

## 60V N-Channel MOSFET

### 1. FEATURES

- 60V, 140A,  $R_{DS(ON)} = 2\text{m}\Omega @ V_{GS} = 10\text{V}$
- Improved  $dv/dt$  capability
- Fast switching
- 100% EAS Guaranteed
- We declare that the material of product compliance with RoHS requirements and Halogen Free.

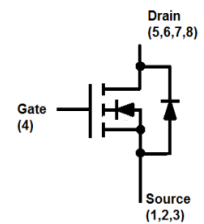


### 2. APPLICATIONS

- Networking
- Load Switch
- LED applications

### 3. DEVICE MARKING AND RESISTOR VALUES

Device	Marking	Shipping
LN7460DT1WG	LN7460	3000/Tape&Reel



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

Parameter		Symbol	Limits	Unit
Drain-to-Source Voltage		V <sub>DS</sub>	60	V
Gate-to-Source Voltage		V <sub>GS</sub>	+20/-12	V
Continuous Drain Current	TC=25°C	I <sub>D</sub>	140	A
	TC=100°C		88	A
Pulsed Drain Current(Note 1)		I <sub>DM</sub>	560	A
Avalanche Current(L=0.1mH)		I <sub>AS</sub>	45	A
Avalanche Energy(L=0.1mH)		E <sub>AS</sub>	101	mJ
Power Dissipation TC=25°C		PD	110	W
Derate above 25°C			0.89	W/°C
Operating Junction and Storage Temperature Range		T <sub>j</sub> /T <sub>stg</sub>	-50~+150	°C

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

### 5. THERMAL CHARACTERISTICS

Parameter		Symbol	Limits	Unit
Maximum Junction-to-Ambient	$t \leq 10\text{s}$	R <sub>θJA</sub>	25	°C/W
	Steady State		65	
Maximum Junction-to-Case		R <sub>θJC</sub>	3.5	°C/W

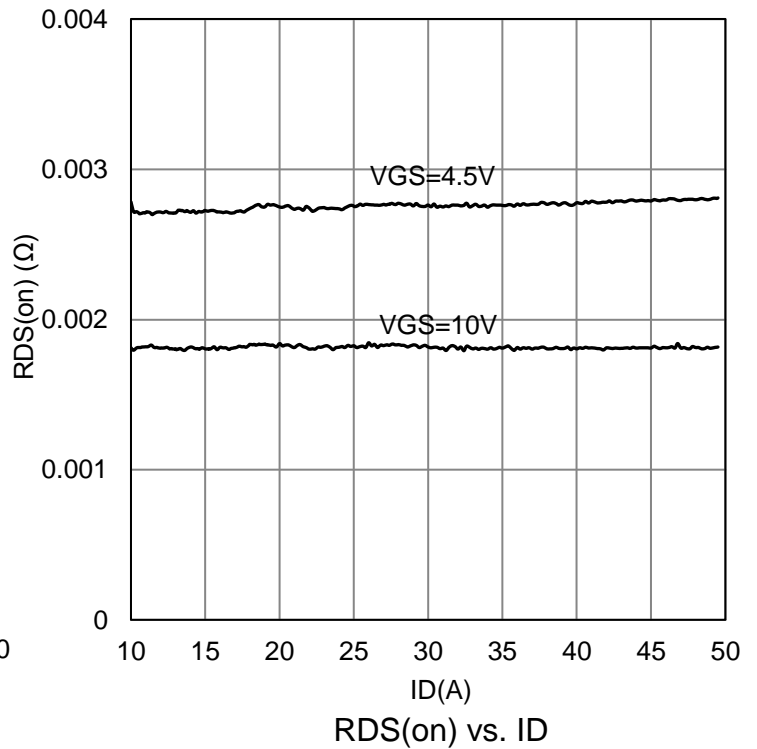
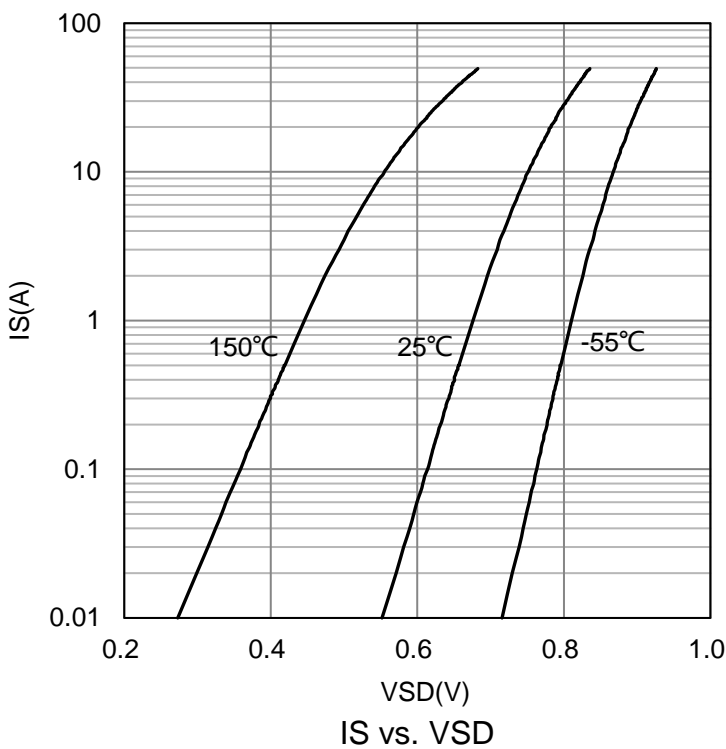
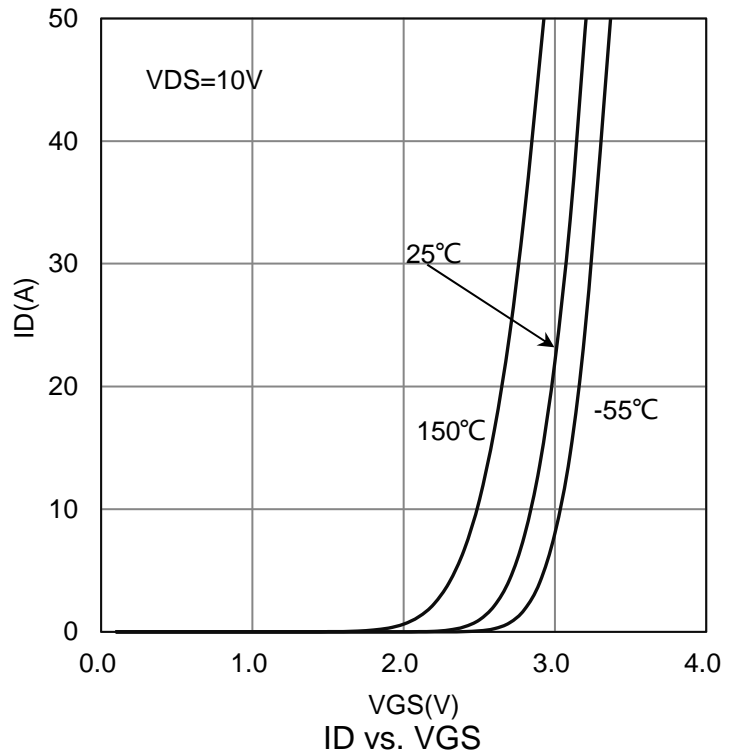
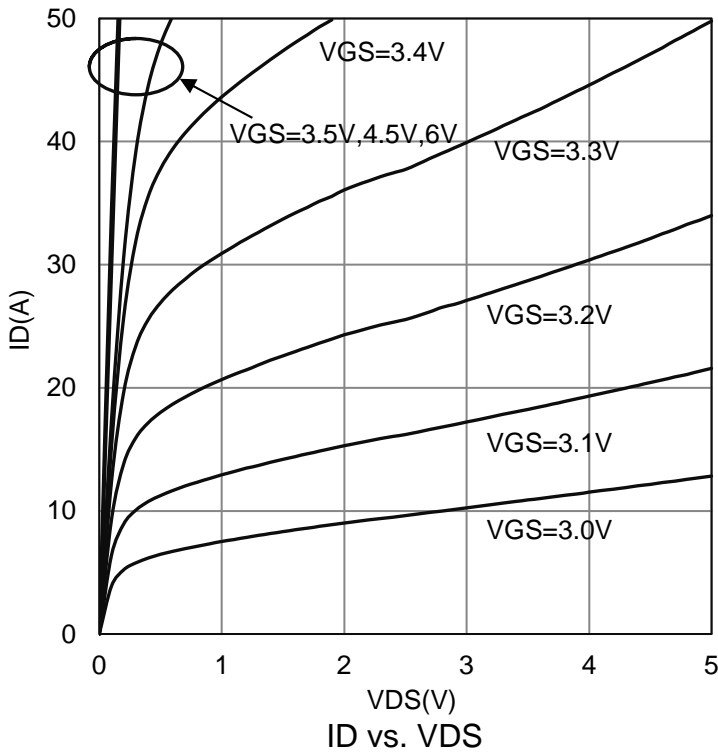
**6. ELECTRICAL CHARACTERISTICS (Ta= 25°C)**

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)	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	1.7	2.5	V
Drain-to-Source On-Resistance (VGS =10V, ID =20A) (VGS =4.5V, ID =10A)	RDS(ON)	- -	2 2.8	2.5 3.3	mΩ
Total Gate Charge	(VDS =30V, VGS =10V, ID =50A) Qg	-	113	-	nC
Gate to Source Charge	Qgs	-	20	-	
Gate to Drain Charge	Qgd	-	31.5	-	
Turn-on Delay Time	(VDD =15V, VGS =10V, RG =3.3 Ω, ID =1A) td(ON)	-	19	-	nS
Rise Time	tr	-	12	-	
Turn-Off Delay Time	td(OFF)	-	62	-	
Fall Time	tf	-	130	-	
Input Capacitance	(VDS =30V, VGS =0V, F=1MHz) Ciss	-	4984	-	pF
Output Capacitance	Coss	-	1798	-	
Reverse Transfer Capacitance	Crss	-	102.8	-	
Internal Gate Resistance	Rg	-	1.1	-	Ω
Diode Forward Voltage (VGS =0V, IS =1A, TJ =25°C)	VSD	-	-	1	V
Continuous Source Current (VG =VD =0V , Force Current)	IS	-	-	140	A
Pulsed Source Current (VG =VD =0V , Force Current)	ISM	-	-	280	A
Reverse Recovery Time	(VGS=10V, IS=10A, di/dt=100 A/μs, TJ=25°C) trr	-	88	-	ns
Reverse Recovery Charge	Qrr	-	175	-	nC

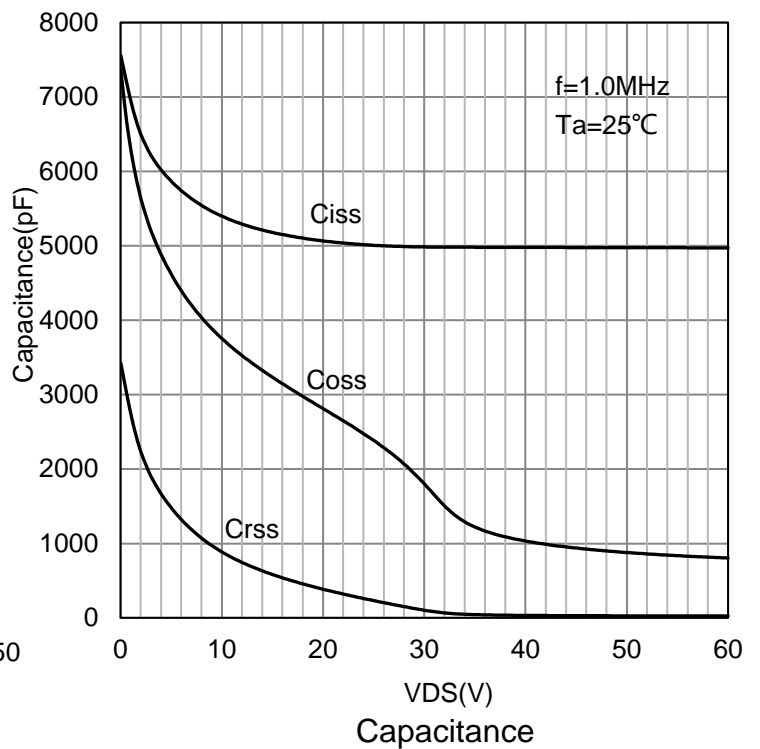
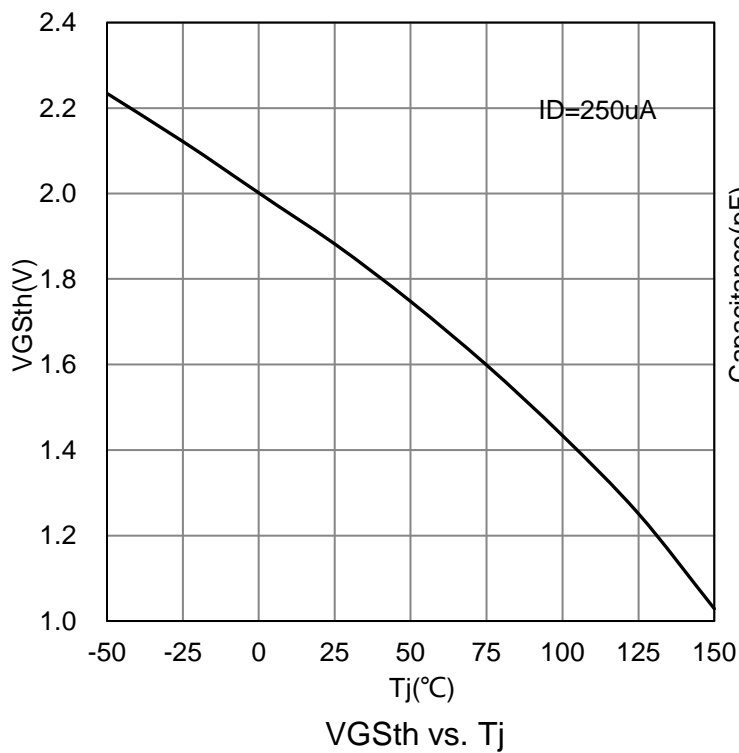
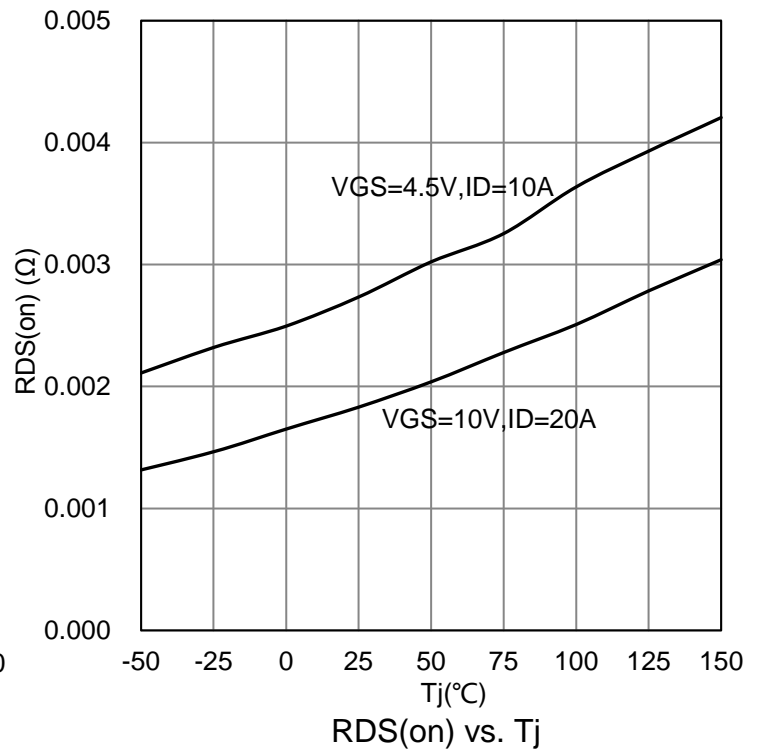
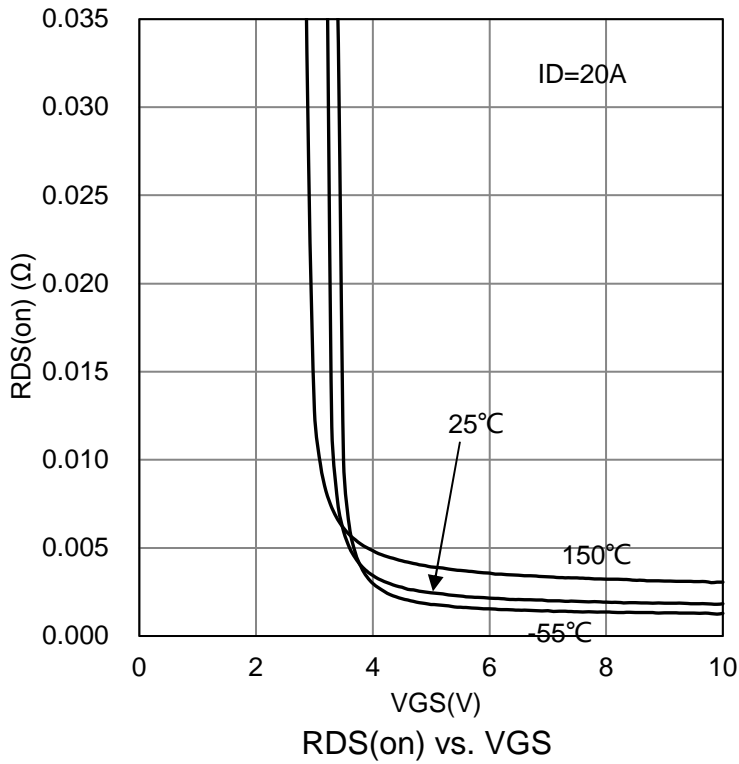
2. Pulse test: PW ≤ 300μs duty cycle ≤ 2%.

3. Essentially independent of operating temperature.

**7.ELECTRICAL CHARACTERISTICS CURVES**

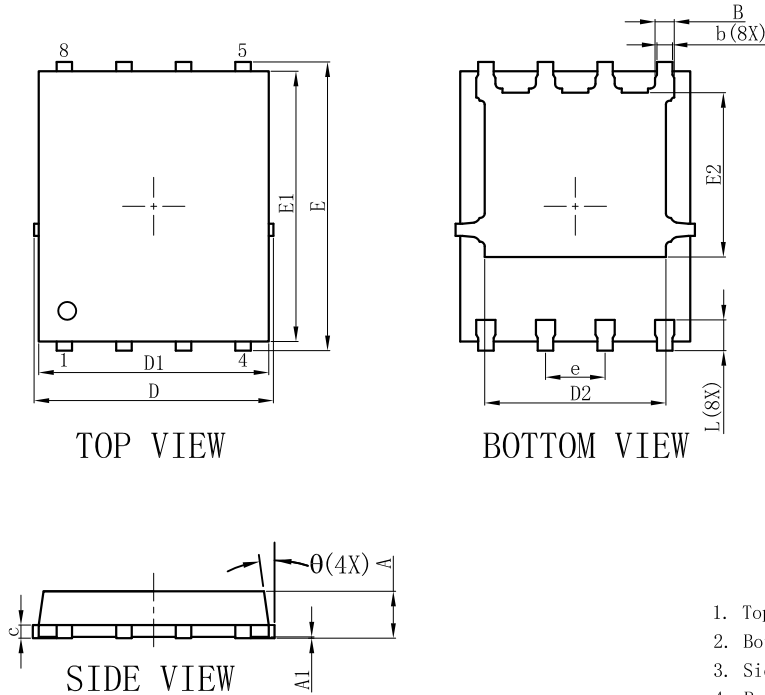


**7.ELECTRICAL CHARACTERISTICS CURVES(Con.)**



### 8. OUTLINE AND DIMENSIONS

DFN5060-8B

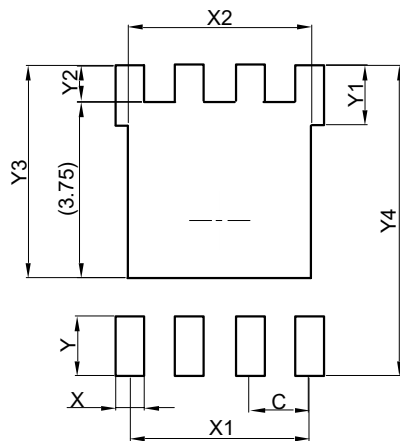


DFN5060-8B			
DIM	MIN	NOR	MAX
A	0.90	1.00	1.10
A1	0.00	0.02	0.05
E	6.00	6.15	6.30
E1	5.66	5.76	5.86
E2	3.40	3.50	3.60
D	4.95	5.10	5.25
D1	4.80	4.90	5.00
D2	3.76	3.86	3.96
b	0.30	0.35	0.40
B	0.36	0.41	0.46
L	0.56	0.66	0.76
e	1.27BSC		
c	0.254REF.		
$\theta$	0°	-	12°
All Dimensions in mm			

**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
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

单击下面可查看定价，库存，交付和生命周期等信息

[>>LRC\(乐山无线电\)](#)