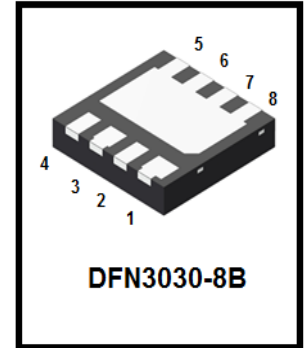


# LN8266DT1AG

## N-Channel 60-V Power MOSFET

### 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.

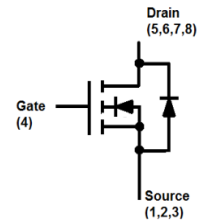


### 2. APPLICATION

- White LED boost converters
- Automotive Systems
- Industrial DC/DC Conversion Circuits

### 3. ORDERING INFORMATION

Device	Marking	Shipping
LN8266DT1AG	N66	3000/Tape&Reel



### 4. MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limit	Units
Drain-Source Voltage	VDS	60	V
Gate-Source Voltage	VGS	±20	
Continuous Drain Current (Note 1)	ID	TA=25°C	9
		TA=70°C	7
Pulsed Drain Current (Note 2)	IDM	40	A
Continuous Source Current (Diode Conduction)(Note 1)	IS	4.6	A
Power Dissipation(Note 1)	PD	TA=25°C	5
		TA=70°C	3.2
Operating Junction and Storage Temperature Range	TJ,Tstg	-55 to 150	°C

### 5. THERMAL CHARACTERISTICS

Parameter	Symbol	Maximum	Units
Maximum Junction-to-Ambient(Note 1)	R <sub>θJA</sub>	t ≤ 10sec	39
		Steady State	85

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

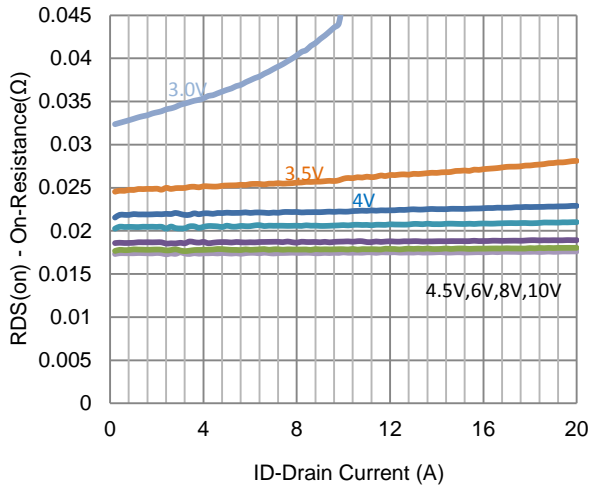
**6. ELECTRICAL CHARACTERISTICS CURVES**

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
<b>Static</b>						
Gate-Source Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = 250 \mu A$	1			V
Gate-Body Leakage	$I_{GSS}$	$V_{DS} = 0 V, V_{GS} = \pm 20 V$			$\pm 10$	$\mu A$
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS} = 48 V, V_{GS} = 0 V$			1	$\mu A$
		$V_{DS} = 48 V, V_{GS} = 0 V, T_J = 55^\circ C$			25	
On-State Drain Current	$I_{D(on)}$	$V_{DS} = 5 V, V_{GS} = 10 V$	25			A
Drain-Source On-Resistance	$r_{DS(on)}$	$V_{GS} = 10 V, I_D = 10.4 A$		16.5	20	m $\Omega$
		$V_{GS} = 4.5 V, I_D = 7.2 A$		20.5	24	
Forward Transconductance	$g_{fs}$	$V_{DS} = 15 V, I_D = 10.4 A$		20		S
Diode Forward Voltage	$V_{SD}$	$I_S = 2.3 A, V_{GS} = 0 V$		0.7		V
<b>Dynamic</b>						
Total Gate Charge	$Q_g$	$V_{DS} = 30 V, V_{GS} = 4.5 V, I_D = 10.4 A$		13.3		nC
Gate-Source Charge	$Q_{gs}$			4.2		
Gate-Drain Charge	$Q_{gd}$			5.0		
Turn-On Delay Time	$t_{d(on)}$	$V_{DS} = 30 V, R_L = 2.9 \Omega, I_D = 10.4 A,$ $V_{GEN} = 10 V, R_{GEN} = 6 \Omega$		10		ns
Rise Time	$t_r$			24		
Turn-Off Delay Time	$t_{d(off)}$			67		
Fall Time	$t_f$			37		
Input Capacitance	$C_{iss}$	$V_{DS} = 15 V, V_{GS} = 0 V, f = 1 MHz$		1739		pF
Output Capacitance	$C_{oss}$			88.5		
Reverse Transfer Capacitance	$C_{rss}$			73.9		

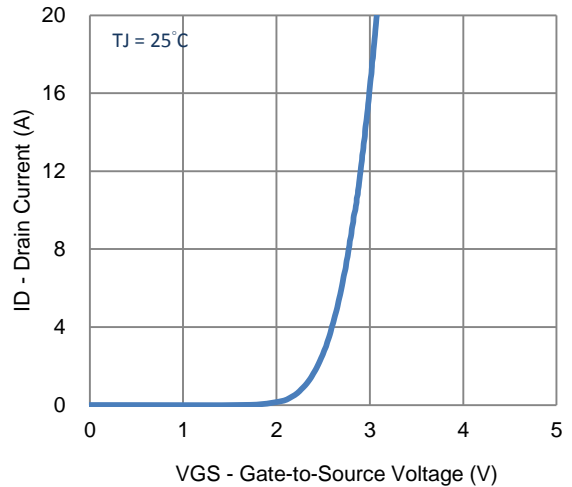
3. Pulse test:  $PW \leq 300 \mu s$  duty cycle  $\leq 2\%$ .

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

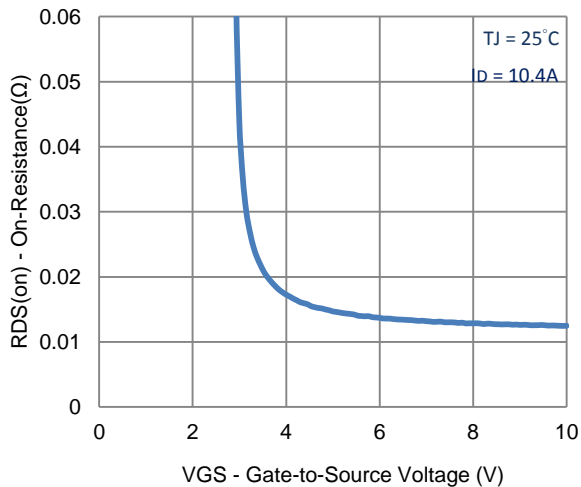
### 7. ELECTRICAL CHARACTERISTICS CURVES



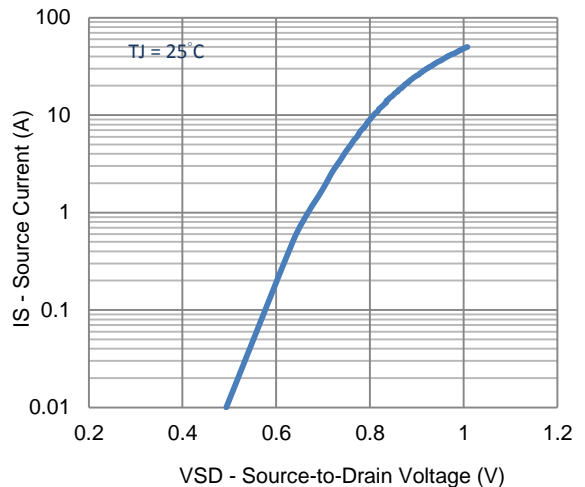
**1. On-Resistance vs. Drain Current**



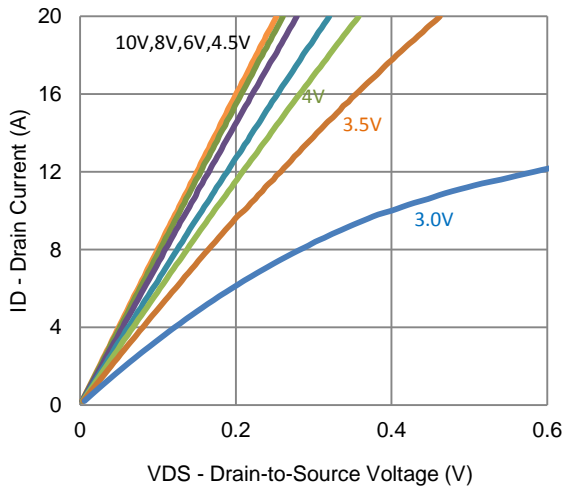
**2. Transfer Characteristics**



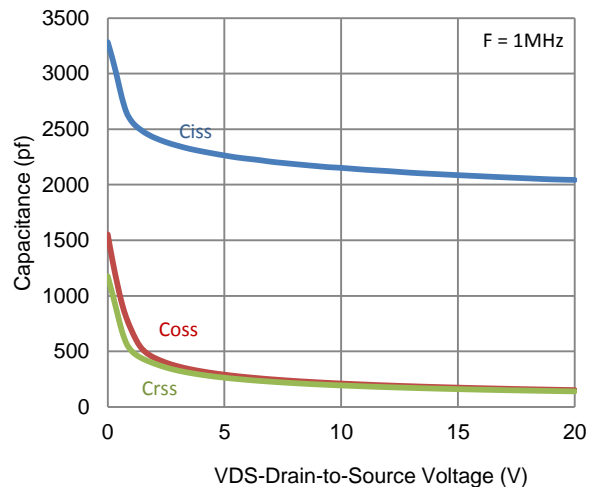
**3. On-Resistance vs. Gate-to-Source Voltage**



**4. Drain-to-Source Forward Voltage**

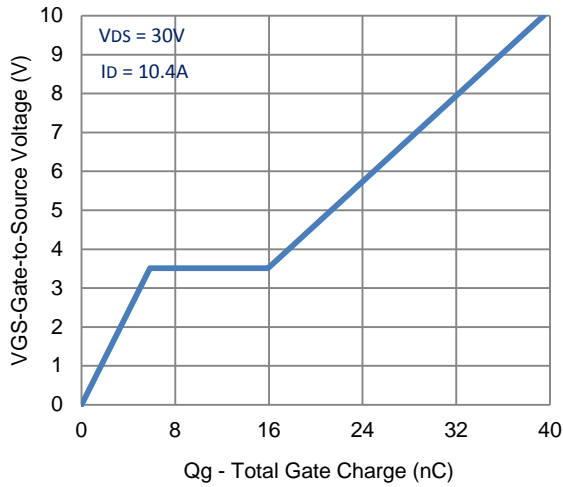


**5. Output Characteristics**

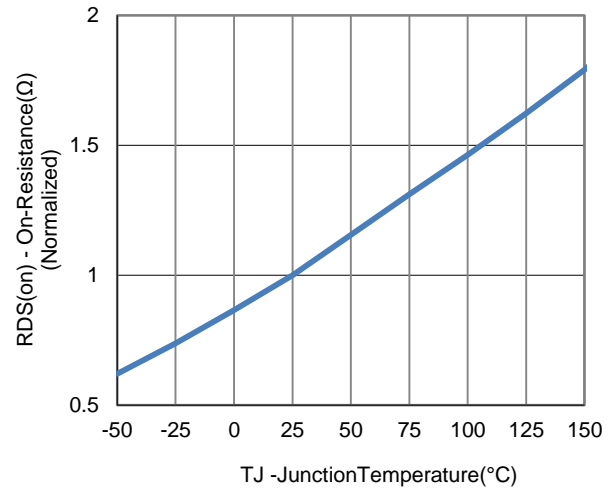


**6. Capacitance**

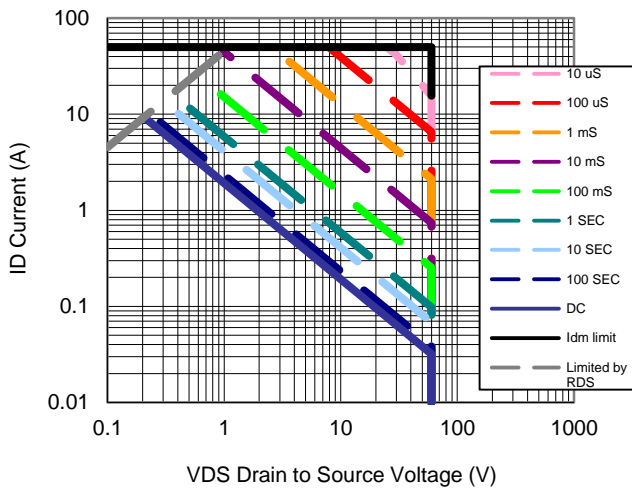
**8. ELECTRICAL CHARACTERISTICS CURVES (Con.)**



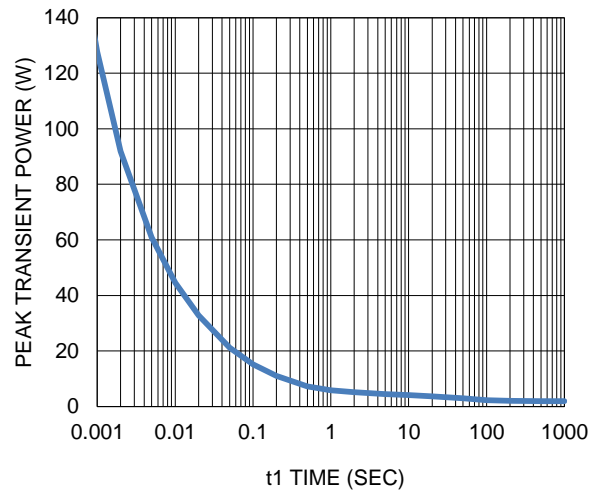
**7. Gate Charge**



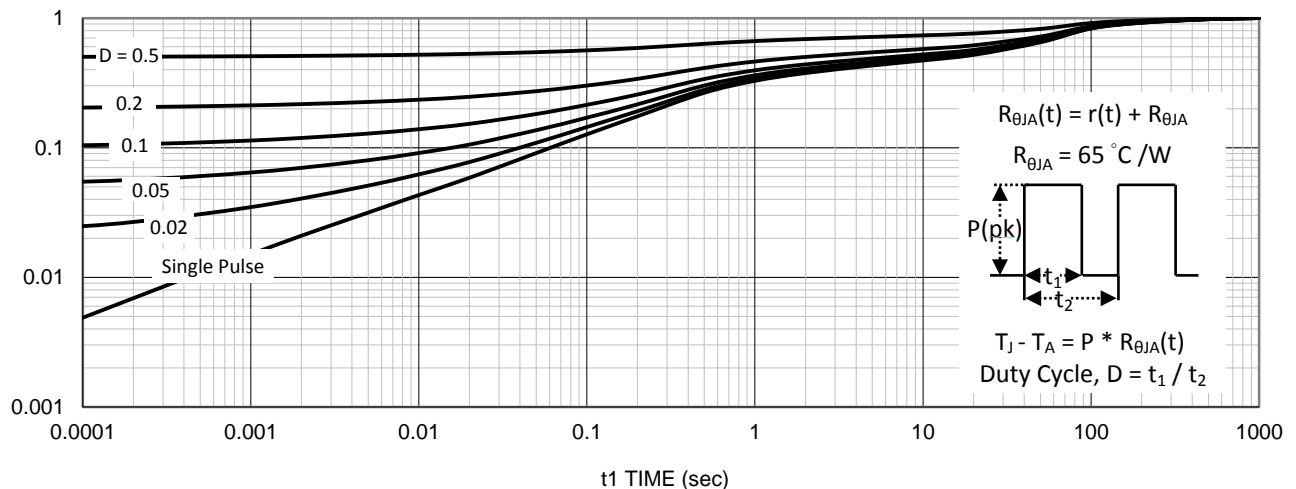
**8. Normalized On-Resistance Vs Junction Temperature**



**9. Safe Operating Area**

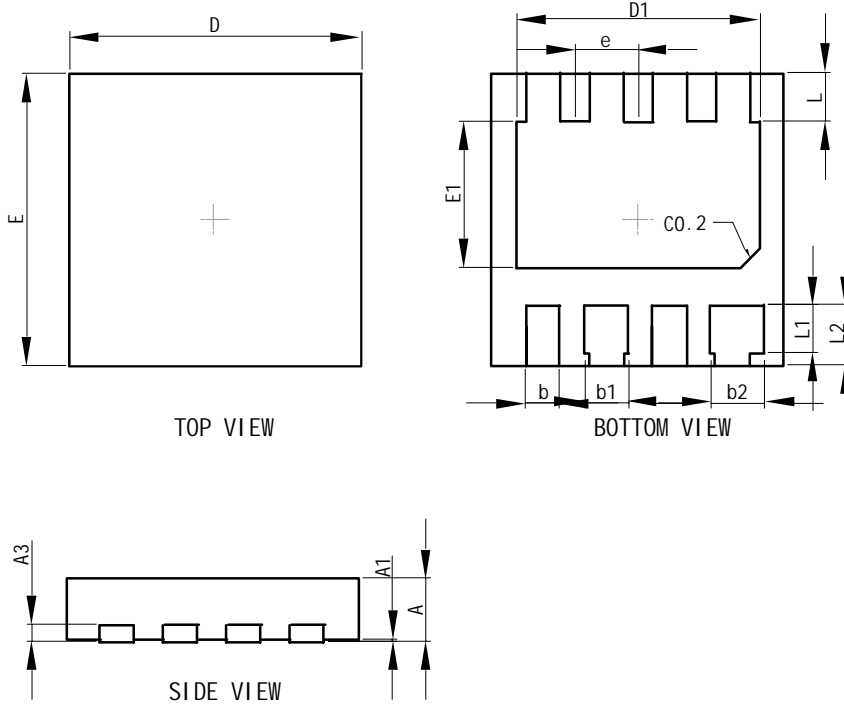


**10. Single Pulse Maximum Power Dissipation**



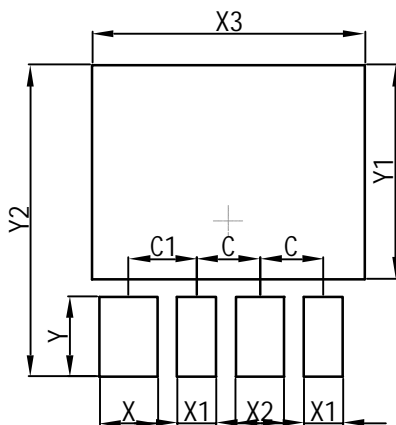
**11. Normalized Thermal Transient Junction to Ambient**

**9. OUTLINE AND DIMENSIONS**



DFN3030-8B			
Dim	Min	Nor	Max
A	0.60	0.65	0.70
A1	0.00	0.03	0.05
b	0.30	0.35	0.40
b1	0.40	0.45	0.50
b2	0.50	0.55	0.60
D	2.95	3.00	3.05
E	2.95	3.00	3.05
D1	2.45	2.50	2.55
E1	1.45	1.50	1.55
e	0.65BSC		
L	0.45	0.50	0.55
L1	0.44	0.49	0.54
L2	0.57	0.62	0.67
A3	0.152REF.		
All Dimensions in mm			

**10. SOLDERING FOOTPRINT**



DFN3030-8B	
Dim	(mm)
C	0.65
C1	0.70
X	0.60
X1	0.40
X2	0.50
X3	2.80
Y1	2.20
Y2	3.20
Y	0.82

单击下面可查看定价，库存，交付和生命周期等信息

[>>LRC\(乐山无线电\)](#)