

LN2621DT2AG

60V N-Channel Power MOSFET

1. FEATURES

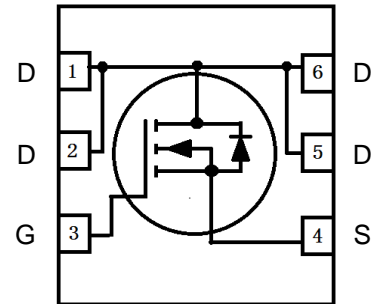
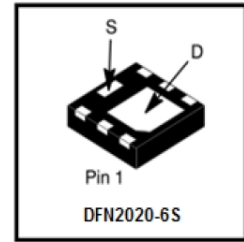
- Low thermal impedance.
- Fast switching speed.
- We declare that the material of product are Halogen Free and compliance with RoHS requirements.

2. APPLICATIONS

- Power Routing
- Motor Drives

3. ORDERING INFORMATION

Device	Marking	Shipping
LN2621DT2AG	S21	4000/Tape&Reel



4. MAXIMUM RATINGS(Ta = 25°C unless otherwise stated)

Parameter	Symbol	Limits	Unit
Drain-to-Source Voltage	VDS	60	V
Gate-to-Source Voltage	VGS	±20	V
Continuous Drain Current(Note 1)	ID	TA =25°C	7.5
		TA =70°C	6
Pulsed Drain Current (Note 2)	IDM	30	A
Avalanche Current	IAS	17	A
Avalanche energy(L=0.1mH)	EAS	14.45	mJ
Power Dissipation(Note 1)	PD	TA =25°C	2.1
		TA =70°C	1.3
Operating Junction and Storage Temperature Range	TJ , TSTG	-55 ~+150	°C

5. THERMAL CHARACTERISTICS

Parameter	Symbol	Max	Unit
Thermal Resistance,Junction-to-Ambient(Note 1)	RθJA	60	°C/W
Thermal Resistance,Junction-to-Case	RθJC	12	

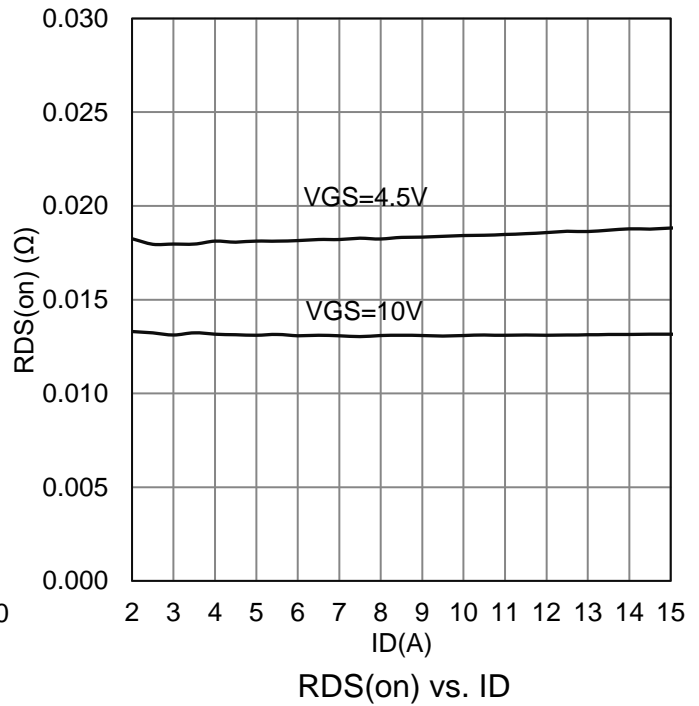
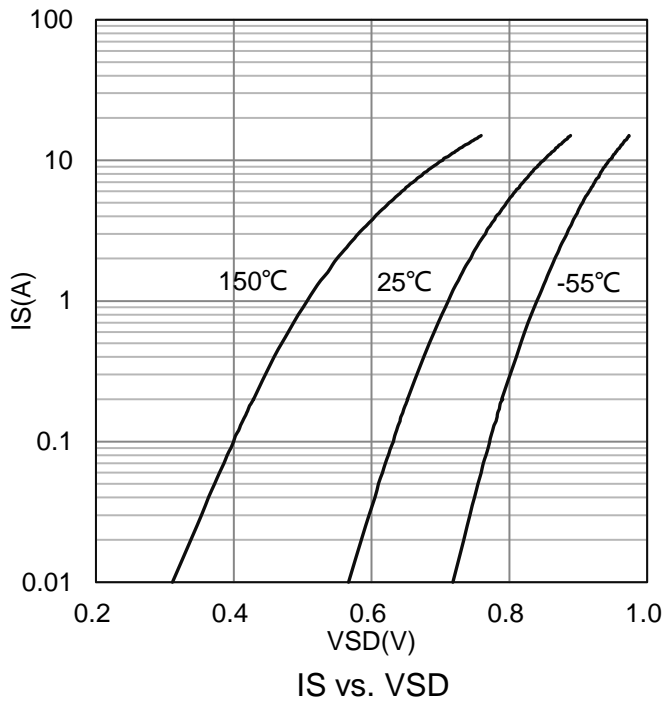
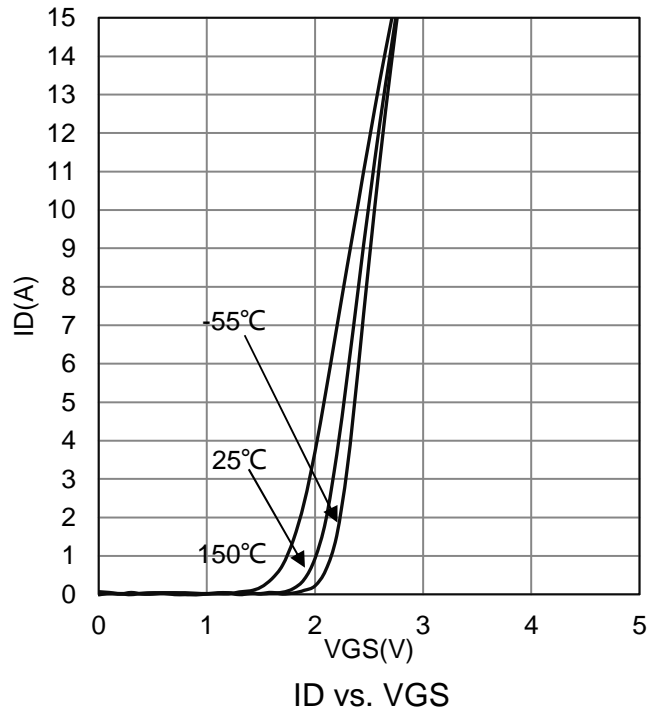
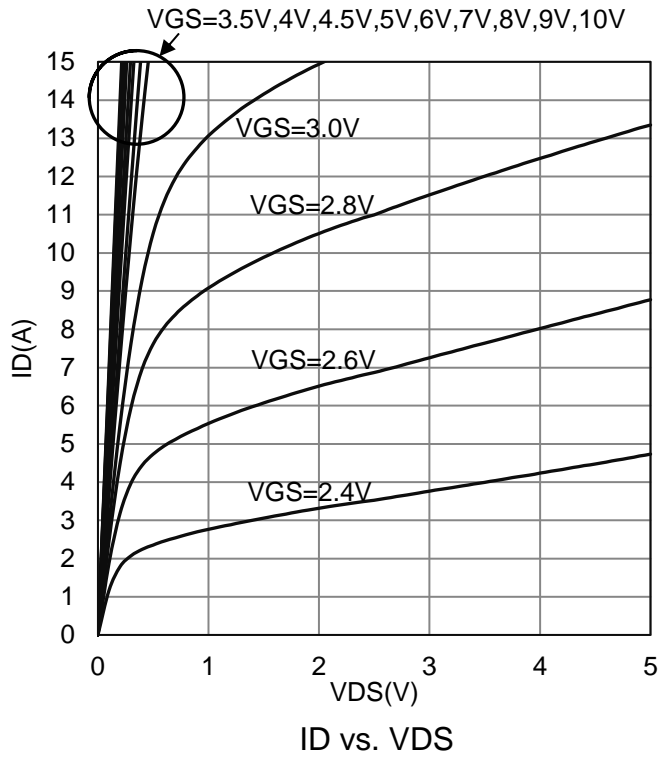
- 1.Surface mounted on 1.5 x 1.5 FR4 board using 1 sq in pad, 2 oz Cu.
- 2.Pulse width limited by maximum junction temperature

6. ELECTRICAL CHARACTERISTICS

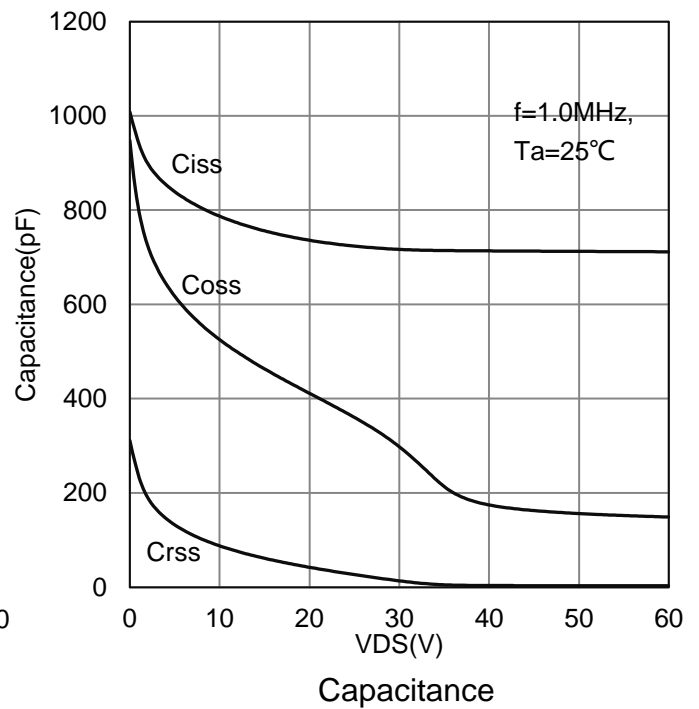
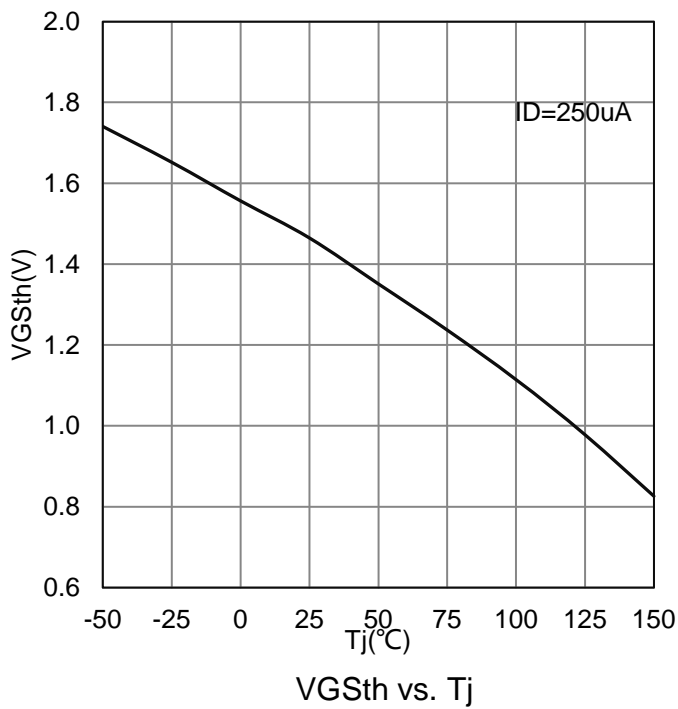
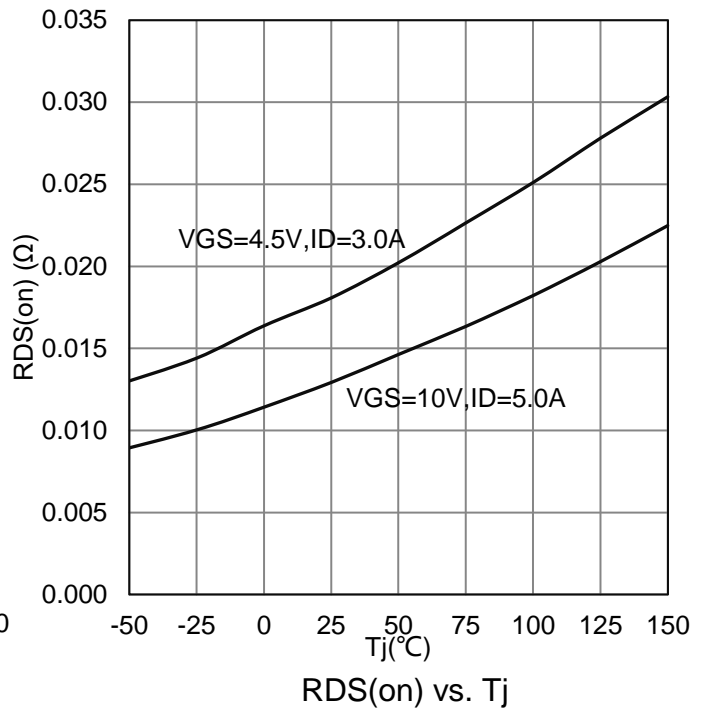
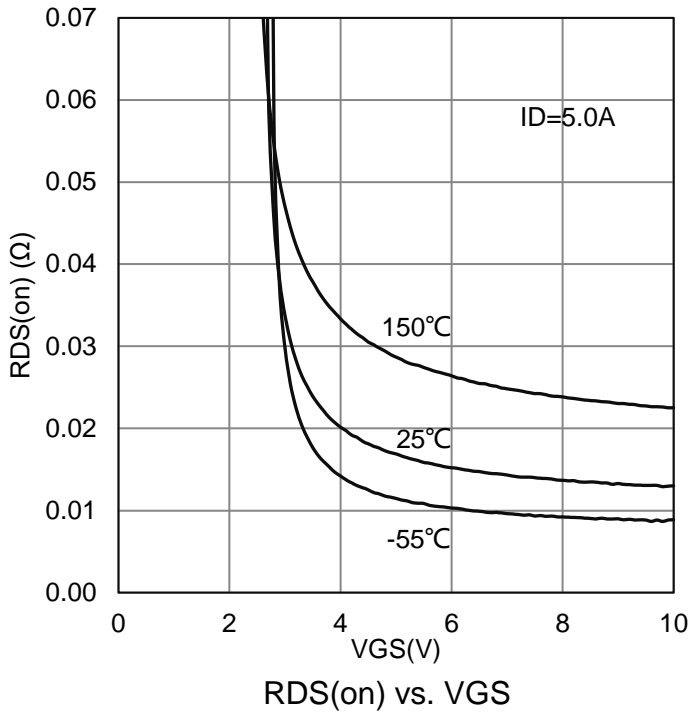
Characteristic	Symbol	Min.	Typ.	Max.	Unit	
Static						
Drain–Source Breakdown Voltage (VGS = 0 V , ID = 250 uA)	V(BR)DSS	60	-	-	V	
Gate-Source Threshold Voltage (VDS = VGS , ID = 250 uA)	VGS(th)	1.0	1.5	2.0	V	
Gate-Body Leakage (VDS = 0 V, VGS = ±20 V)	IGSS	-	-	±100	nA	
Zero Gate Voltage Drain Current (VDS = 48 V, VGS = 0 V)	IDSS	-	-	1	μA	
Drain-Source On-Resistance(Note 3) (VGS = 10 V, ID = 5 A) (VGS = 4.5 V, ID = 3 A)	RDS(on)	-	18 23	21 30	mΩ	
Diode Forward Voltage(Note 3) (IS = 1 A, VGS = 0 V)	VSD	-	0.7	1.3	V	
Dynamic						
Total Gate Charge	(VDS = 30 V, VGS = 10 V, ID = 5 A)	Qg	-	14.2	-	nC
Gate-Source Charge		Qgs	-	1.6	-	
Gate-Drain Charge		Qgd	-	4.1	-	
Turn-On Delay Time	(VDS = 30 V, ID= 1A, VGS = 10V RG = 6 Ω)	td(on)	-	6.6	-	ns
Rise Time		tr	-	6	-	
Turn-Off Delay Time		td(off)	-	30	-	
Fall Time		tf	-	25	-	
Input Capacitance	(VDS = 30 V, VGS = 0 V, f = 1 MHz)	Ciss	-	717	-	pF
Output Capacitance		Coss	-	313	-	
Reverse Transfer Capacitance		Crss	-	13.6	-	

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

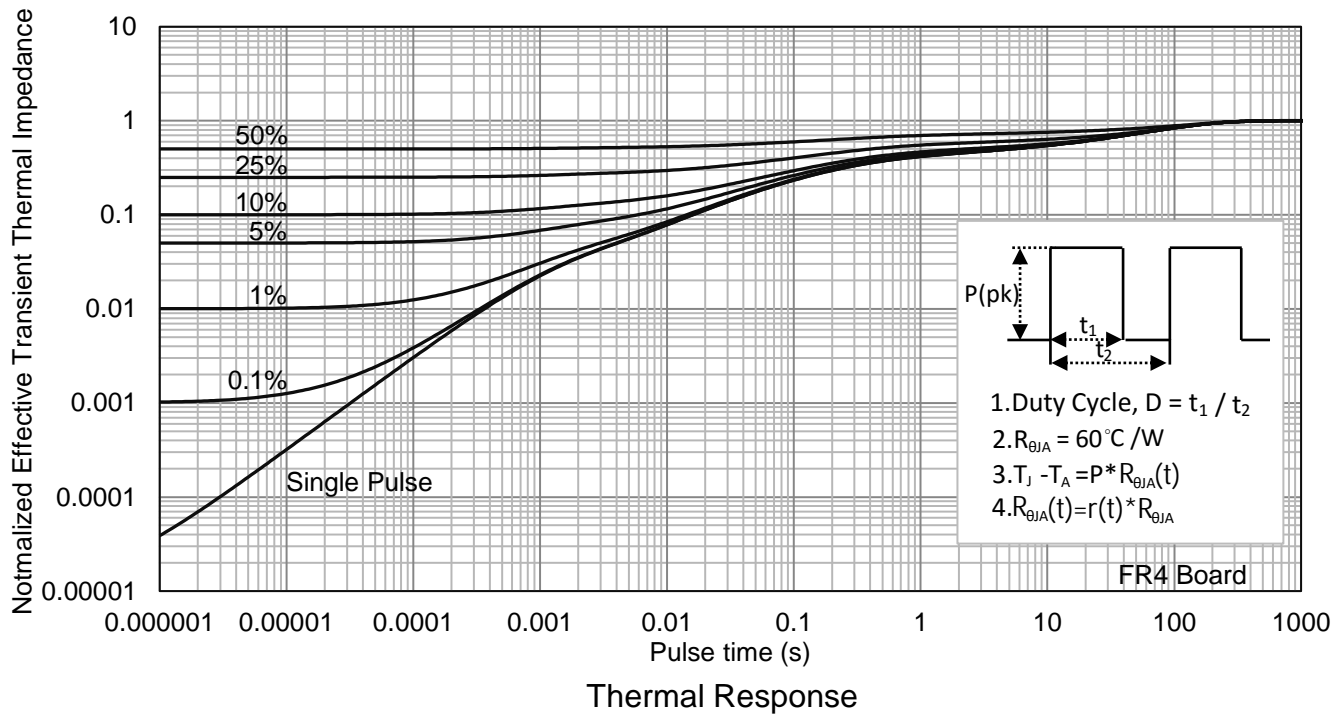
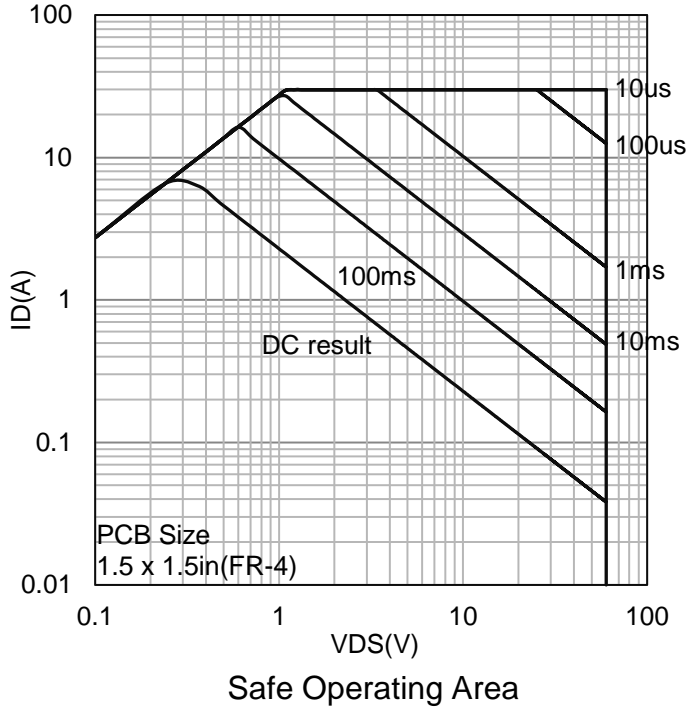
7. ELECTRICAL CHARACTERISTICS CURVES



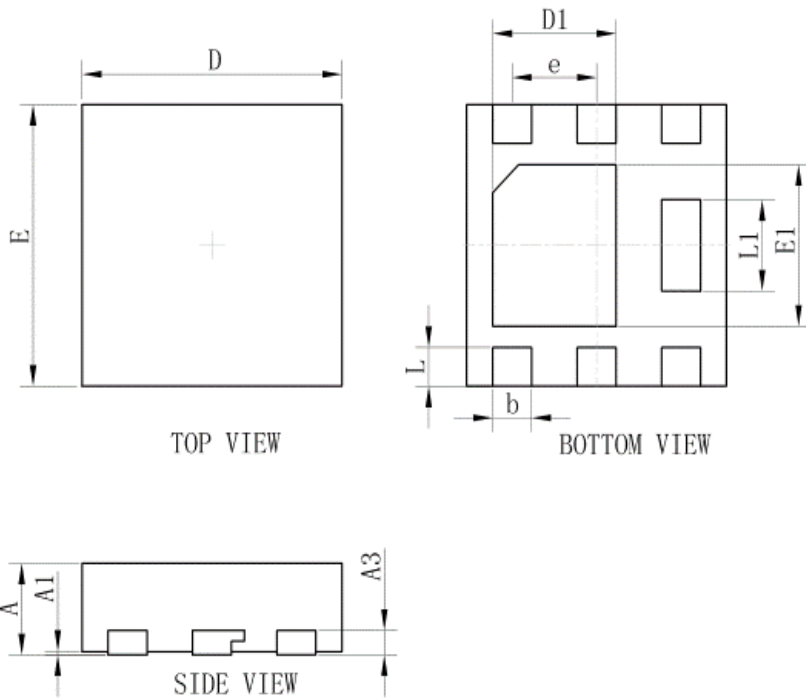
7. ELECTRICAL CHARACTERISTICS CURVES(Con.)



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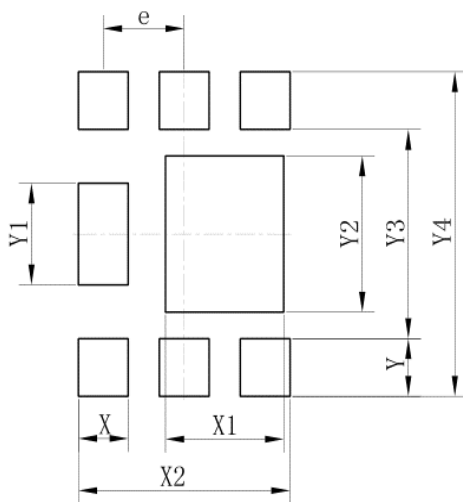


8. OUTLINE AND DIMENSIONS



DFN2020-6S			
DIM	MIN	NOR	MAX
A	0.60	0.65	0.70
A1	0.01	0.03	0.05
b	0.25	0.30	0.35
D	1.95	2.00	2.05
E	1.95	2.00	2.05
e	0.65TYP.		
L	0.23	0.28	0.33
L1	0.60	0.65	0.70
D1	0.90	0.95	1.00
E1	1.10	1.15	1.20
A3	0.152REF		
All Dimensions in mm			

9. SOLDERING FOOTPRINT



DFN2020-6S	
Dim	(mm)
X	0.40
X1	0.95
X2	1.70
e	0.65
Y	0.43
Y1	0.75
Y2	1.15
Y3	1.54
Y4	2.39

DISCLAIMER

- Curve guarantee in the specification. The curve of test items with electric parameter is used as quality guarantee. The curve of test items without electric parameter is used as reference only.
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