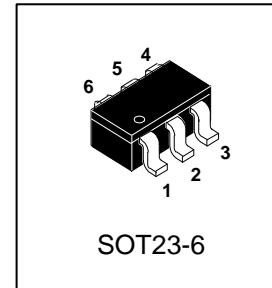


LN2605T1G

N-Channel 60-V (D-S) MOSFET

1. FEATURES

- Low RDS(on) trench technology.
- Low thermal impedance.
- Fast switching speed.
- We declare that the material of product are Halogen Free and compliance with RoHS requirements.

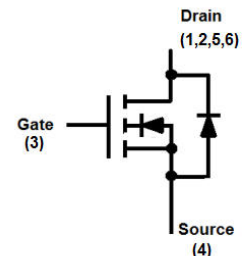


2. APPLICATION

- Power Routing
- DC/DC Conversion
- Motor Drives

3. ORDERING INFORMATION

Device	Marking	Shipping
LN2605T1G	SN5	3000/Tape&Reel



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

Parameter	Symbol	Limits	Unit
Drain-to-Source Voltage	VDSS	60	V
Gate-to-Source Voltage	VGS	±20	V
Continuous Drain Current(Note 1)	ID	TA =25°C	5.2
		TA =70°C	3.6
Pulsed Drain Current (Note 2)	IDM	21	A
Avalanche Current (L = 0.1mH)	IAS	12	A
Avalanche Energy (L = 0.1mH)	EAS	7.2	mJ
Power Dissipation (Note 1)	PD	1	W
Operating Junction and Storage Temperature Range	TJ , TSTG	-55 ~+150	°C

1.Surface Mounted on 1" x 1" FR4 Board.

2.Pulse width limited by maximum junction temperature.

5. THERMAL CHARACTERISTICS

Parameter	Symbol	Limits	Unit
Thermal Resistance,Junction-to-Ambient (Note 3)	RθJA	125	°C/W

3. Surface Mounted on FR4 Board, t ≤ 10 sec.

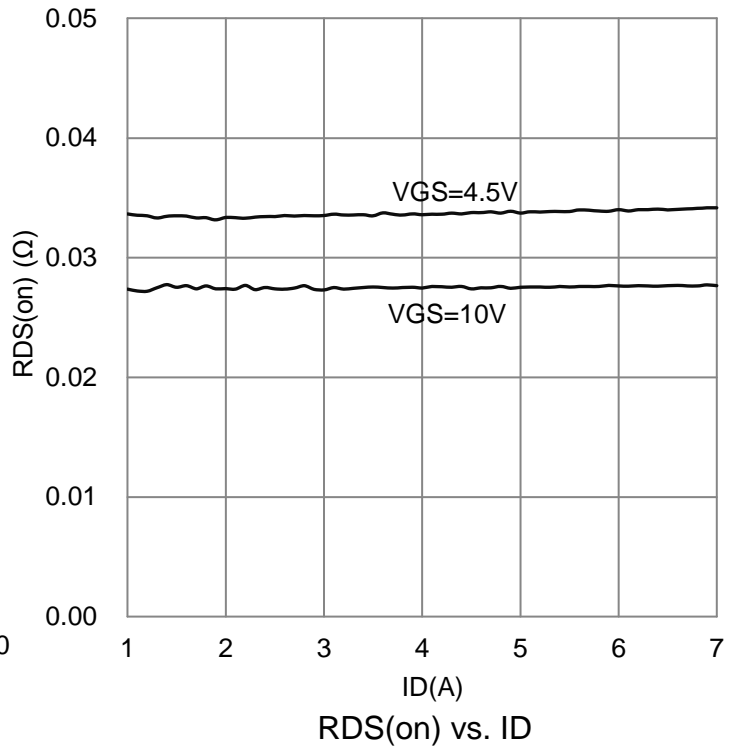
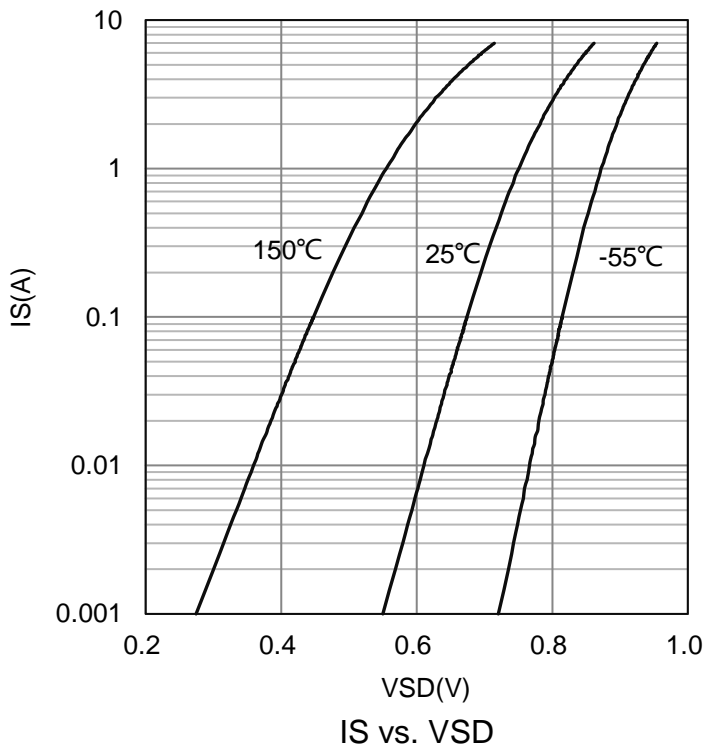
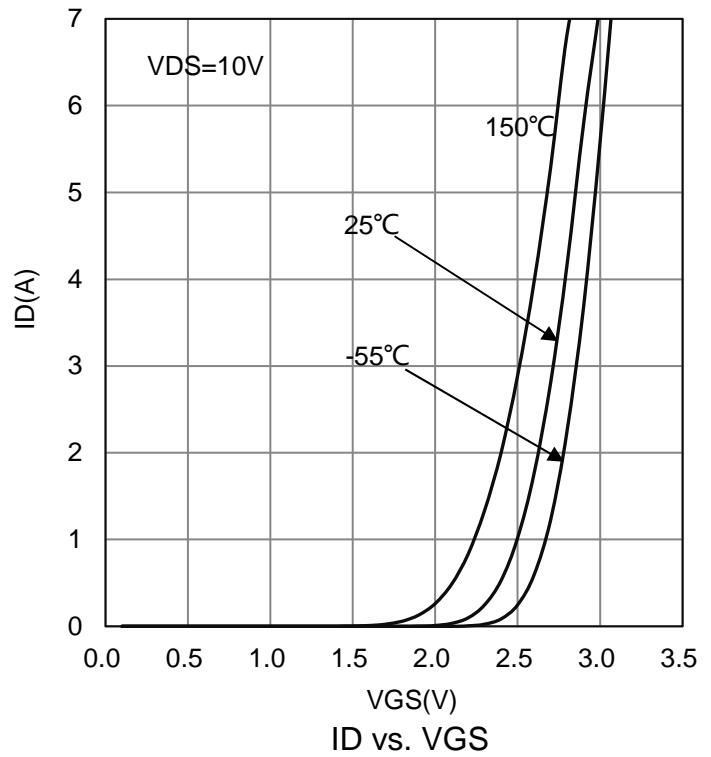
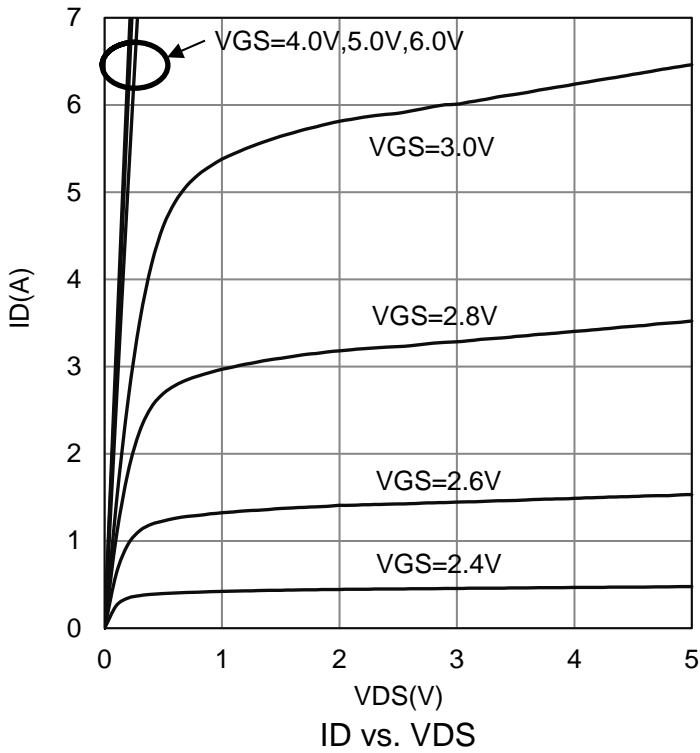
6. ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Static					
Drain-Source Breakdown Voltage (VGS = 0 V, ID = 250 μ A)	V(BR)DSS	60	-	-	V
Gate-Source Threshold Voltage (VDS = VGS, ID = 250 μ A)	VGS(th)	1	-	3	V
Gate-Body Leakage (VDS = 0 V, VGS = \pm 20 V)	IGSS	-	-	\pm 10	μ A
Zero Gate Voltage Drain Current (VDS = 48 V, VGS = 0 V)	IDSS	-	-	1	μ A
Drain-Source On-Resistance(Note 4) (VGS = 10 V, ID = 5.2 A) (VGS = 4.5 V, ID = 4 A)	RDS(on)	- -	27 35	35 45	m Ω
Dynamic(Note 5)					
Total Gate Charge	(VDS = 30 V, VGS = 4.5 V, ID = 5A)	Qg	-	10	nC
Gate-Source Charge		Qgs	-	3.5	
Gate-Drain Charge		Qgd	-	3	
Turn-On Delay Time	(VDS = 30V, RL=6 Ω ,ID =5A,VGEN = 10 V, RGEN = 6 Ω)	td(on)	-	9	ns
Rise Time		tr	-	12	
Turn-Off Delay Time		td(off)	-	45	
Fall Time		tf	-	18	
Input Capacitance	(VDS = 15 V, VGS = 0 V, f = 1 MHz)	Ciss	-	1302	pF
Output Capacitance		Coss	-	65	
Reverse Transfer Capacitance		Crss	-	51.5	
Diode Forward Voltage(Note 3) (IF = IS = 2.1 A, VGS = 0 V)	VSD	-	0.7	1.2	V
Continuous Current	IS	-	-	5.2	A
Pulsed Current	ISM	-	-	21	A

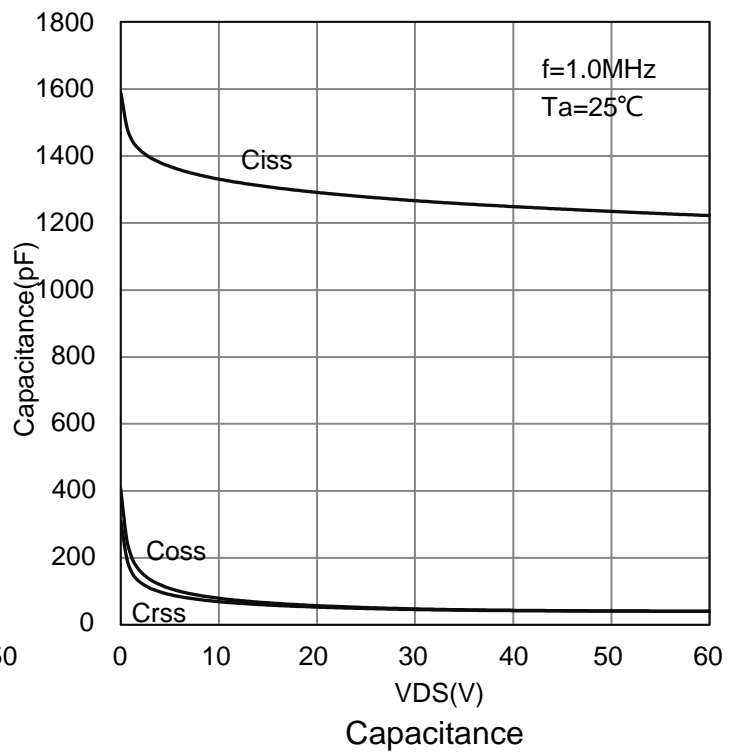
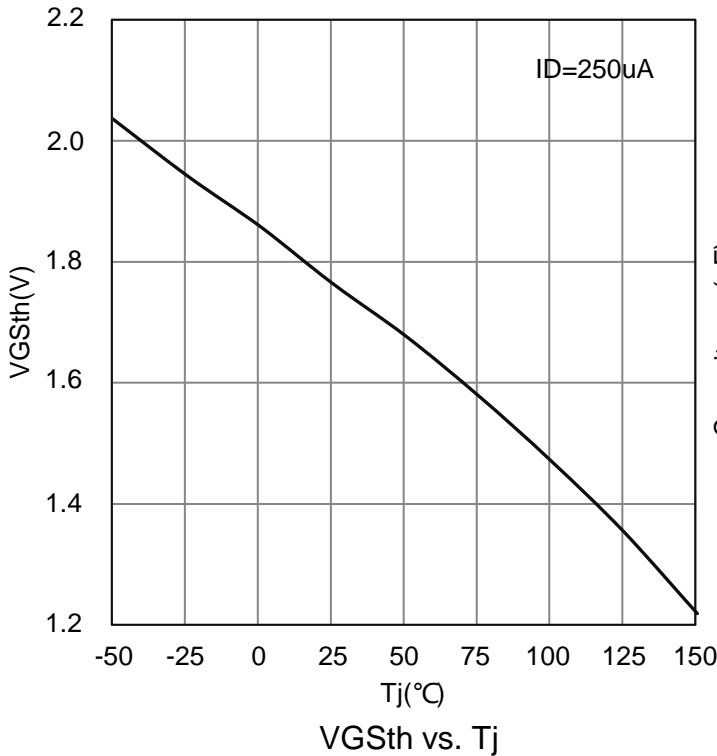
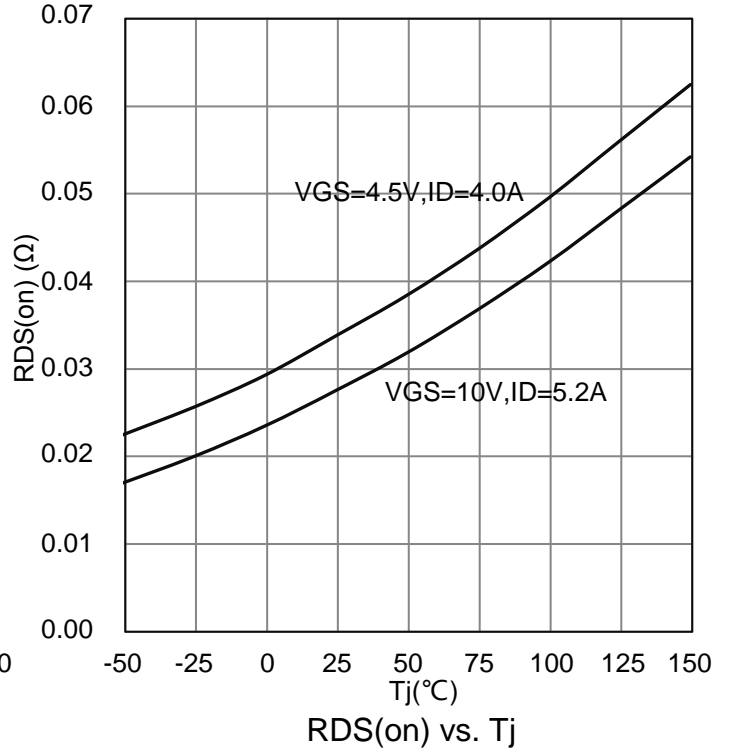
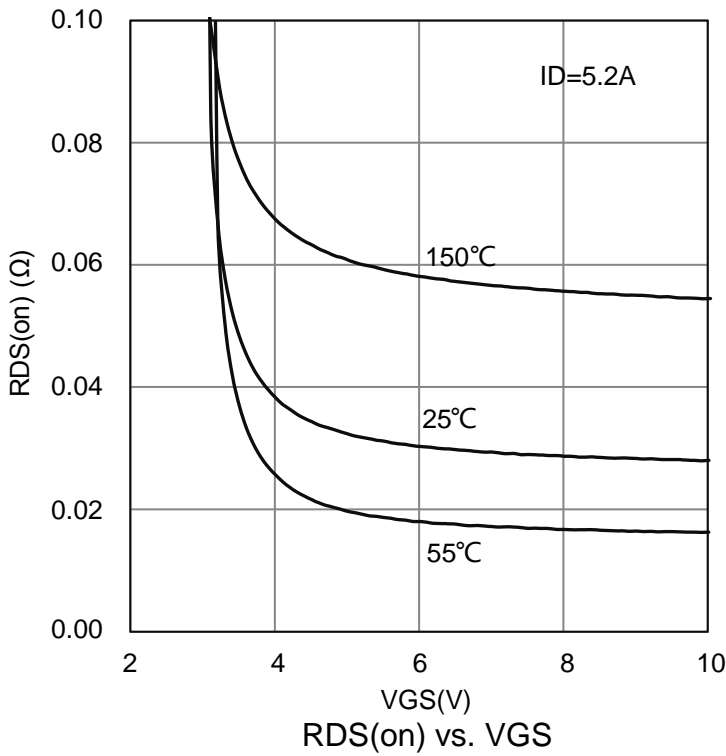
4.Pulse test: PW \leq 300us duty cycle \leq 2%.

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

7. ELECTRICAL CHARACTERISTICS CURVES

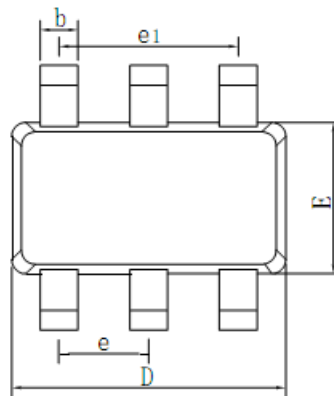
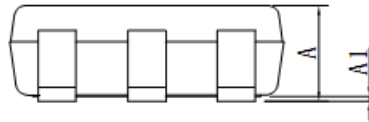
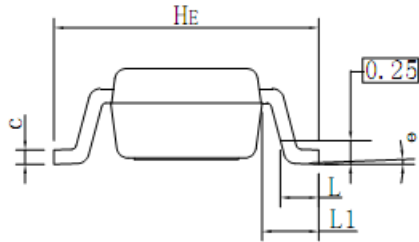


7. ELECTRICAL CHARACTERISTICS CURVES(Con.)



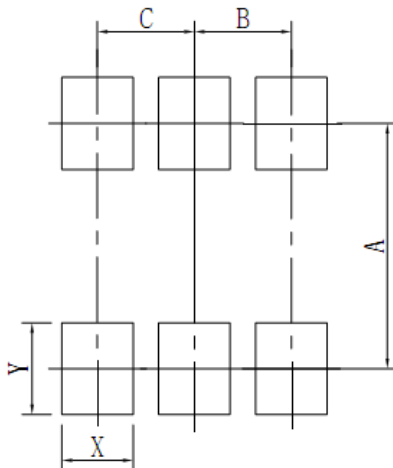
8. OUTLINE AND DIMENSIONS

SOT23-6



SOT23-6			
DIM	MIN	NOR	MAX
A	0.90	1.00	1.10
A1	0.01	0.06	0.10
b	0.25	0.40	0.50
c	0.10	0.17	0.26
D	2.80	2.90	3.10
E	1.30	1.60	1.70
e	0.85	0.95	1.05
e1	1.80	1.90	2.00
L	0.20	0.40	0.60
L1	0.60REF		
HE	2.50	2.80	3.00
θ	0°	-	10°

9. SOLDERING FOOTPRINT



SOT23-6	
DIM	(mm)
X	0.70
Y	0.90
A	2.40
B	0.95
C	0.95

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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