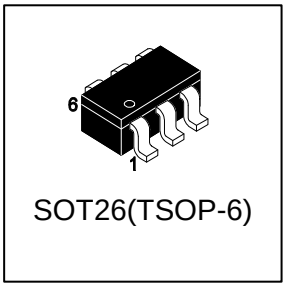
LNP3604T1G

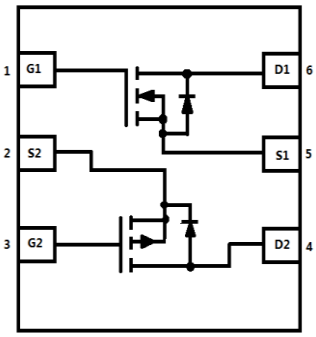
30 V Complementary Trench MOSFET

1. FEATURES



SOT26(TSOP-6)

- P-Channel:VDS = -30V
  RDS(ON)≤105mΩ,VGS@-10V,IDS@-2.0A
  RDS(ON)≤115mΩ,VGS@-4.5V,IDS@-2.0A
  RDS(ON)≤150mΩ,VGS@-2.5V,IDS@-1.0A
- N-Channel:VDS = 30V
  RDS(ON)≤70mΩ ,VGS@10V,IDS@3A
  RDS(ON)≤80mΩ,VGS@4.5V,IDS@2A
  RDS(ON)≤120mΩ,VGS@2.5V,IDS@1A
- 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. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
LNP3604T1G	M4	3000/Tape&Reel

3. Absolute Maximum Ratings (TA =25 ℃unless otherwise noted)

Parameter (P-Channel)		Symbol	Limits	Unit
Drain–Source Voltage		VDS	-30	V
Gate–Source Voltage		VGS	±12	V
Drain Current-Continuous		ID	2.28	A
Drain Current-Pulsed (Note1)		IDM	8.65	A
Maximum Power Dissipation	TA = 25℃	PD	0.89	W
	TA = 75℃		0.54	
Operating Junction and Storage Temperature Range		TJ ,TSTG	-55 ~ +150	℃
Junction-to-Ambient Thermal Resistance (Note2)		RθJA	140	℃/W

Parameter (N-Channel)		Symbol	Limits	Unit
Drain–Source Voltage		VDS	30	V
Gate–Source Voltage		VGS	±12	V
Drain Current-Continuous		ID	3.05	A
Drain Current-Pulsed (Note1)		IDM	11.59	A
Maximum Power Dissipation	TA = 25℃	PD	0.89	W
	TA = 75℃		0.54	
Operating Junction and Storage Temperature Range		TJ ,TSTG	-55 ~ +150	℃
Junction-to-Ambient Thermal Resistance (Note2)		RθJA	140	℃/W

1.Repetitive Rating: Pulse width limited by the maximum junction temperature

2. 1-in ² 2oz Cu PCB board

4. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

P-Channel

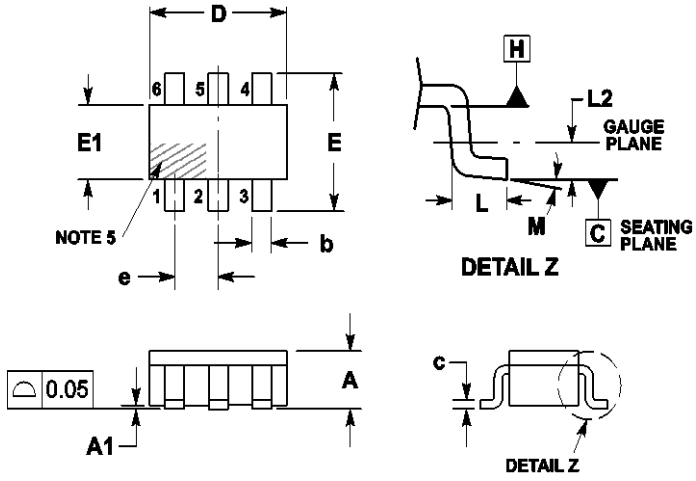
Parameter		Symbol	Min.	Typ.	Max.	Unit
Static						
Drain-Source Breakdown Voltage (VGS =0V ID =-250μA)		BVDSS	-30	-	-	V
Drain-Source On-State Resistance (VGS=-10V, ID=-2.0A) (VGS=-4.5V, ID=-2.0A) (VGS=-2.5V, ID=-1.0A)		RDS(on)	- - -	85 95 125	105 115 150	mΩ
Gate Threshold Voltage (VDS = VGS, ID =-250uA)		VGS(th)	-0.5	-0.9	-1.3	V
Zero Gate Voltage Drain Current (VDS = -24V, VGS = 0V)		IDSS	-	-	-1	uA
Gate Body Leakage (VGS =±12V, VDS = 0V)		IGSS	-	-	±100	nA
Source-Drain Diode						
Diode Forward Voltage (IS = -1.0A, VGS = 0V)		VSD	-	-	-1.5	V
Dynamic Characteristics						
Input Capacitance (VGS = 0 V, f = 1.0MHz,VDS= -15 V)		Ciss	-	954	-	pF
Output Capacitance (VGS = 0 V, f = 1.0MHz,VDS= -15 V)		Coss	-	115	-	pF
Reverse Transfer Capacitance (VGS = 0 V, f = 1.0MHz,VDS= -15 V)		Crss	-	77	-	pF
Switching Characteristics						
Turn-On Delay Time	(VDS =-15V, RL = 3.6Ω VGS =-10V,RG= 6Ω)	td(on)	-	11	-	ns
Rise Time		tr	-	33	-	
Turn-Off Delay Time		td(off)	-	45	-	
Fall Time		tf	-	22	-	
Total Gate Charge (VGS =-4.5V, VDS =-15V, ID =-4A,ID =-4.5A)		Qg	-	9.4	-	nC
Gate−to−Source Gate Charge (VGS =-4.5V, VDS =-15V, ID =-4A,ID =-4.5A)		Qgs	-	2	-	nC
Gate−to−Drain Charge (VGS =-4.5V, VDS =-15V, ID =-4A,ID =-4.5A)		Qgd	-	3	-	nC

4. ELECTRICAL CHARACTERISTICS (Ta= 25°C)(Con.)

N-Channel

Parameter		Symbol	Min.	Typ.	Max.	Unit
Static						
Drain-Source Breakdown Voltage (VGS =0V ID =250μA)		BVDSS	30	-	-	V
Drain-Source On-State Resistance (VGS=10V, ID=3.0A) (VGS=4.5V, ID=2.0A) (VGS=2.5V, ID=1A)		RDS(on)	- - -	55 65 100	70 80 120	mΩ
Gate Threshold Voltage (VDS = VGS, ID =250uA)		VGS(th)	0.6	0.93	1.4	V
Zero Gate Voltage Drain Current (VDS = 30V, VGS = 0V)		IDSS	-	-	1.0	uA
Gate Body Leakage (VGS =±12V, VDS = 0V)		IGSS	-	-	± 10	uA
Source-Drain Diode						
Diode Forward Voltage (IS = 1.0A, VGS = 0V)		VSD	-	-	1.5	V
Dynamic Characteristics						
Input Capacitance (VGS = 0 V, f = 1.0MHz,VDS= 15 V)		Ciss	-	513.51	-	pF
Output Capacitance (VGS = 0 V, f = 1.0MHz,VDS= 15 V)		Coss	-	80.85	-	pF
Reverse Transfer Capacitance (VGS = 0 V, f = 1.0MHz,VDS= 15 V)		Crss	-	54.87	-	pF
Switching Characteristics						
Turn-On Delay Time	(VDD = 15V, RL = 2.7Ω ID = 1A, VGEN = 10V,RG = 3Ω)	td(on)	-	12	-	ns
Rise Time		tr	-	19	-	
Turn-Off Delay Time		td(off)	-	60	-	
Fall Time		tf	-	27	-	

5.OUTLINE AND DIMENSIONS

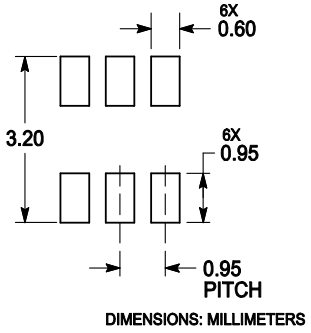


Notes:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.

	MILLIMETERS			INCHES		
DIM	MIN	NOM	MAX	MIN	NOM	MAX
A	0.90	1.00	1.10	0.035	0.039	0.043
A1	0.01	0.06	0.10	0.0004	0.002	0.004
b	0.25	0.38	0.50	0.010	0.015	0.020
c	0.10	0.18	0.26	0.004	0.007	0.010
D	2.90	3.00	3.10	0.114	0.118	0.122
E	2.50	2.75	3.00	0.098	0.108	0.118
E1	1.30	1.50	1.70	0.051	0.059	0.067
e	0.85	0.95	1.05	0.033	0.037	0.041
L	0.20	0.40	0.60	0.008	0.016	0.024
L2	0.25REF			0.010REF		
M	0°	---	10°	0°	---	10°

6.SOLDERING FOOTPRINT



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)