

transphorm 产品清单

2022/4/4

QFN5*6

QFN8*8

TO220

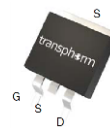
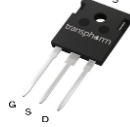
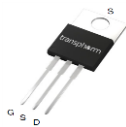
TO263

TOLL 10*12

TO247

TO268

0086-13501775977
HZ021@QQ.COM



型号 (氮化镓FET 点击下载)	封装	脚位	电压 V	内阻 毫欧	参考电流	每周期尖峰电压 100ns时间	参考功率
TP65H480G4JSG	QFN 5*6 贴片	背部接S	650V	480mΩ	4A	750V	65W
TP65H300G4LSG	QFN 8*8 贴片	背部接S	650V	300mΩ	7A	750V	130W
TP65H150G4LSG	QFN 8*8 贴片	背部接S	650V	150mΩ	13A	750V	300W
TPH3206PSB/TP65H150G4PS	TO220	G, S, D	650V	150mΩ	16A	750V	1000W
TP65H070LSG/TP65H070G4LSG	QFN 8*8 贴片	背部接S	650V	70mΩ	25A	750V	1500W
TPH3212PS/TP65H070G4PS	TO220	G, S, D	650V	70mΩ	27A	750V	2200W
TP65H050G4BS	TO263/D2PAK 贴片	背部接S	650V	50mΩ	34A	750V	3000W
TP65H050G4WS	TO247	G, S, D	650V	50mΩ	35A	750V	3000W
TPH3205WSQA 汽车级	TO247	G, S, D	650V	50mΩ	35A	750V	3000W
TP65H035QS	TOLL 10*12 贴片	背部接S	650V	35mΩ	47A	750V	4500W
TP65H035G4WS	TO247	G, S, D	650V	35mΩ	47A	750V	4500W
TP65H035WSQA 汽车级	TO247	G, S, D	650V	35mΩ	47A	750V	4500W
TP65H015G5WS	TO247	G, S, D	650V	15mΩ	95A	750V	8000W
TP90H180PS	TO220	G, S, D	900V	180mΩ	20A	1000V	3000W
TP90H050WS 汽车级	TO247	G, S, D	900V	50mΩ	34A	1000V	5000W

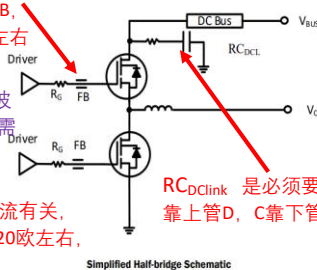
transphorm器件 - 布线与硅管相当，所需器件更少，只会更简单

- 1, 不挑驱动，直接驱，0.5A即可
- 2, 无需负压，门电压+/-20V内均正常工作（10-12V常规驱动电压，0V关断）

门极加—0603电阻Rg
及一磁珠 0603 FB,
100MHZ, 200欧左右

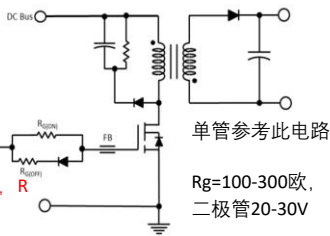
直接连IC方波
输出脚，无需
其它器件

Rg电阻与驱动电流有关，
0.5A驱动器时选20欧左右，
4A时选51欧左右
MMZ1608Q221R
(0603 220欧)



Simplified Half-bridge Schematic

Recommended gate drive: (0V, 8V) with $R_{G(on)} = 30-60 \Omega$



Simplified Single Ended Schematic

Recommended gate drive: (0V, 12V) with $R_{G(on)} = 100$ to 300Ω
 $R_{G(off)} = 0$ to 15Ω

RC_{DCLink} 是必须要放器件，R
靠上管D，C靠下管S脚

参考应用 [点击下载](#)

65W-250W GaN方案

https://pan.baidu.com/s/1g2tHGdNRJ50LoI_fLlK_rg?pwd=1234

AC/DC无桥PFC 99%+效率

https://pan.baidu.com/s/1d57yRino1dwSU30_77EdQ?pwd=1234

DC-AC逆变 99%+效率

<https://pan.baidu.com/s/1uNWClYcmTqNENG2yXMD9QQ?pwd=1234>

3.3KW DAB双向及移相全桥

<https://pan.baidu.com/s/16i5t9rzcJwDAyBj8GyVg?pwd=1234>

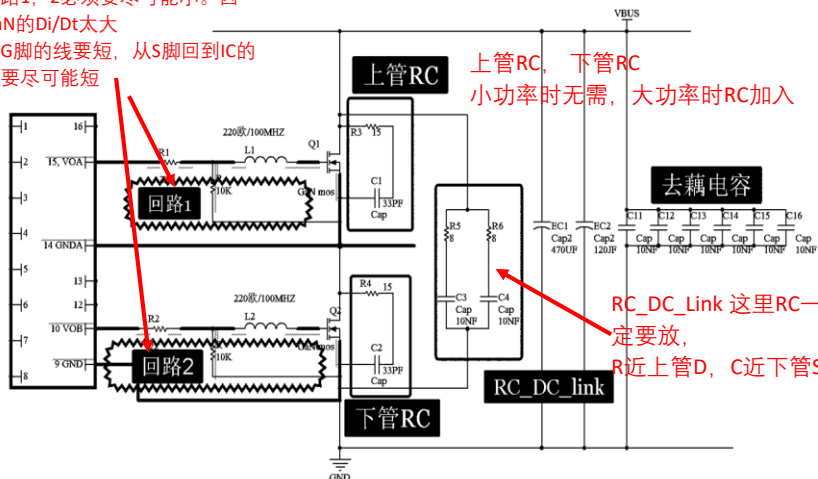
PCB布线

<https://pan.baidu.com/s/1WHW8kGEALK40KbZYUDDg?pwd=1234>

回路1, 2必须要尽可能小。因

GaN的Di/Dt太大

去G脚的线要短，从S脚回到IC的
也要尽可能短



上管RC, 下管RC
小功率时无需，大功率时RC加入

去耦电容
RC_{DC Link} 这里RC一
定要放，
R近上管D，C近下管S

