



temperature compensated LDMOS bias circuit
(see NXP application note CA-330-11)

max pulse length: 5 ms

class AB driver amplifier, 2 MHz to 20 MHz
idsq of 400 mA at Vdd 50 V

current limiting using linear regulator to absorb startup transients..
 $I = V_{ref}/R$, $V_{ref} = 1.25\text{ V}$

attach Q1 transistor to heatsink using
routed out area on pcb

TTL bias switching circuit
(see NXP application note AN11226)

2:1 transformer
10 turns primary
7 turns secondary
using fair-rite 2843000302 and wire-wrap wire

or, 7 turns primary, 5 turns secondary

Attach to heatsink plate with thermal pad to prevent direct contact of bottom of PCB with AL plate and shorting vias..
Try non-electrically-conductive thermally-conductive pad, such as t-Global L37-5-150-150-1.0-1A or Liard A14162-27

see 907K-ND lug or similar for attaching transistor source to ground
use 1-64 machine screws, flat head to attach to heatsink

for transformer design, see "Designing Wide-band Transformers for HF and VHF Power Amplifiers" by Chris Trask, N7ZWY figure 16/17
use two Fair-Rite 2843006802 binocular toroids (available from mouser)

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