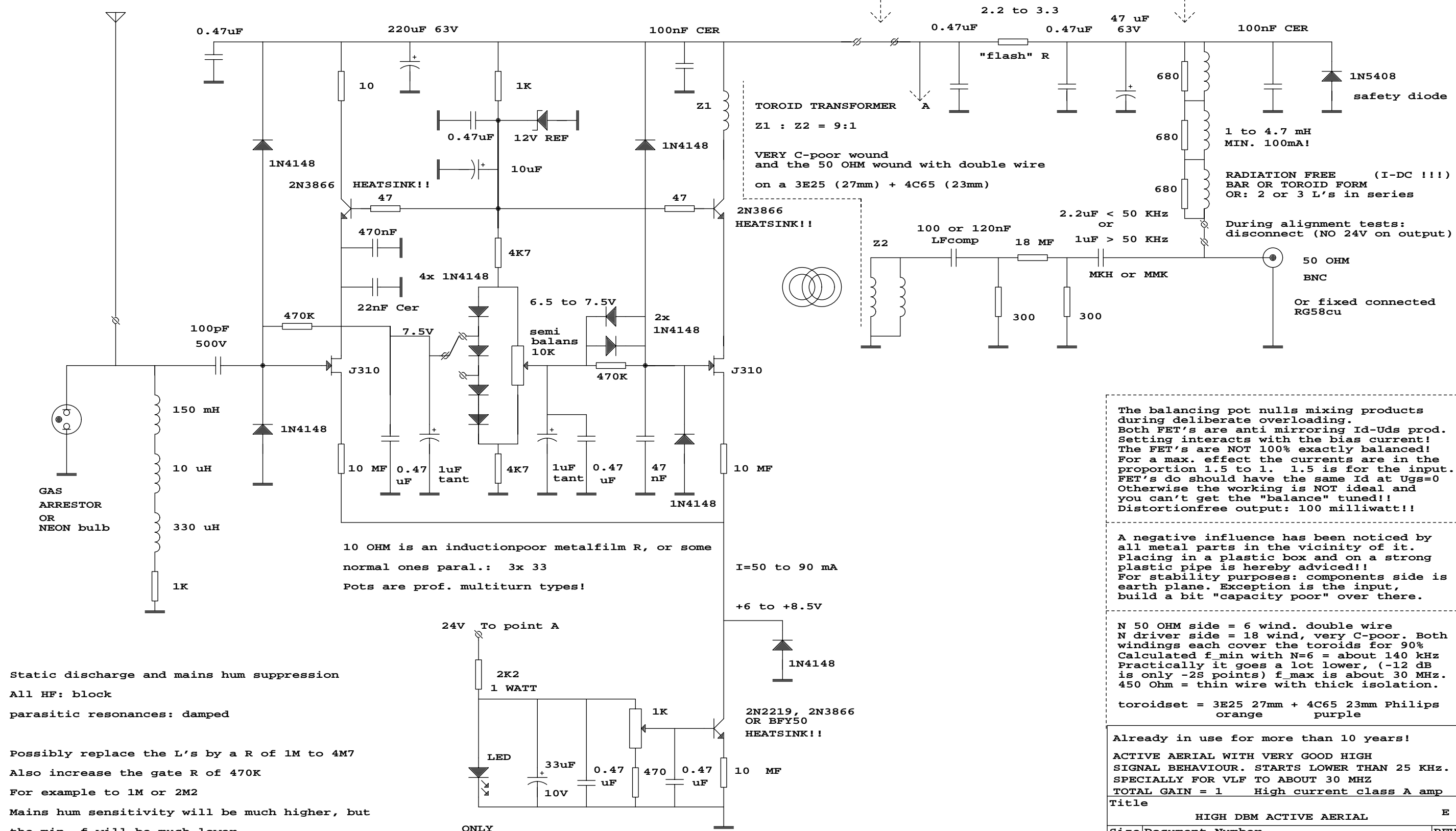


FIBERGLASS WHIP AERIAL

1m to 1m50

current measure strap

SUPPLY = 24V DC



10 OHM is an inductionpoor metalfilm R, or some normal ones paral.: 3x 33
Pots are prof. multiturn types!

I=50 to 90 mA
+6 to +8.5V

The balancing pot nulls mixing products during deliberate overloading. Both FET's are anti mirroring Id-Uds prod. Setting interacts with the bias current! The FET's are NOT 100% exactly balanced! For a max. effect the currents are in the proportion 1.5 to 1. 1.5 is for the input. FET's do should have the same Id at Ugs=0 otherwise the working is NOT ideal and you can't get the "balance" tuned!! Distortionfree output: 100 milliwatt!!

A negative influence has been noticed by all metal parts in the vicinity of it. Placing in a plastic box and on a strong plastic pipe is hereby advised!! For stability purposes: components side is earth plane. Exception is the input, build a bit "capacity poor" over there.

N 50 OHM side = 6 wind. double wire
N driver side = 18 wind, very C-poor. Both windings each cover the toroids for 90%
Calculated f_min with N=6 = about 140 kHz
Practically it goes a lot lower, (-12 dB is only -28 points) f_max is about 30 MHz.
450 Ohm = thin wire with thick isolation.
toroidset = 3E25 27mm + 4C65 23mm Philips orange purple

Already in use for more than 10 years!
ACTIVE AERIAL WITH VERY GOOD HIGH SIGNAL BEHAVIOUR. STARTS LOWER THAN 25 KHZ. SPECIALLY FOR VLF TO ABOUT 30 MHZ
TOTAL GAIN = 1 High current class A amp

Static discharge and mains hum suppression
All HF: block
parasitic resonances: damped

Possibly replace the L's by a R of 1M to 4M7
Also increase the gate R of 470K
For example to 1M or 2M2
Mains hum sensitivity will be much higher, but the min. f will be much lower

ONLY 5mm RED!!

AKTIEF-E.SCH

HIGH DBM ACTIVE AERIAL		E
Size	Document Number	REV
B	CREATED BY W.A.J. GEERAERT PELABR	3.5
Date:	September 28, 2003	Sheet 1 of 2