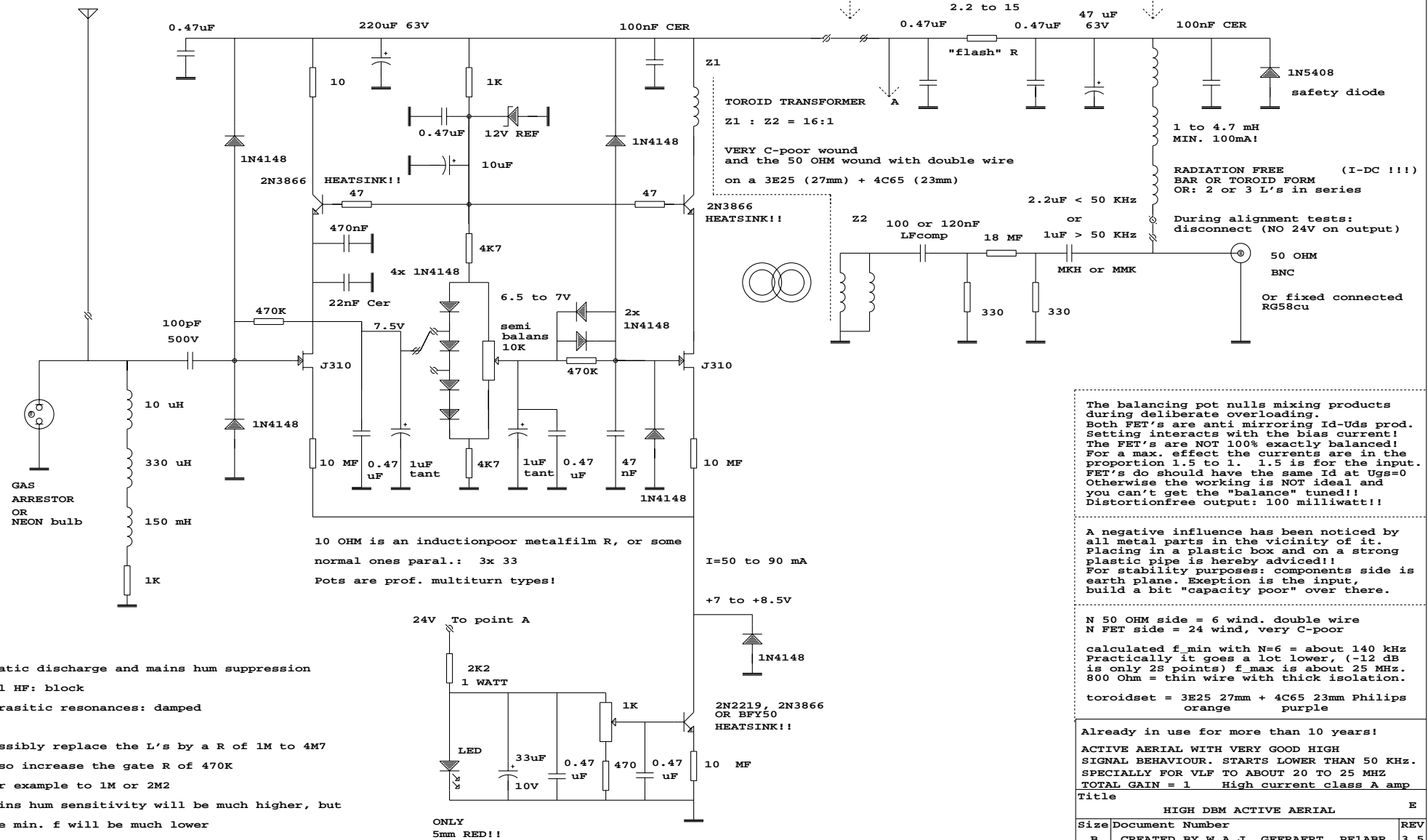


FIBERGLASS WHIP AERIAL

1m to 1m50

current measure strap

SUPPLY = 24V DC



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 FET side = 24 wind, very C-poor  
calculated f\_min with N=6 = about 140 kHz  
Practically it goes a lot lower, (-12 dB is only 2S points) f\_max is about 25 MHz.  
800 Ohm = thin wire with thick isolation.  
toroidset = 3E25 27mm + 4C65 23mm  
orange purple

Already in use for more than 10 years!  
ACTIVE AERIAL WITH VERY GOOD HIGH SIGNAL BEHAVIOUR. STARTS LOWER THAN 50 KHz. SPECIALLY FOR VLF TO ABOUT 20 TO 25 MHZ  
TOTAL GAIN = 1 High current class A amp

Title		E
HIGH DBM ACTIVE AERIAL		
Size	Document Number	REV
B	CREATED BY W.A.J. GEERAERT PELABR	3.5
Date:	January 24, 2000	Sheet 1 of 2

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

10 OHM is an inductionpoor metalfilm R, or some normal ones paral.: 3x 33  
Pots are prof. multiturn types!  
I=50 to 90 mA  
+7 to +8.5V

ONLY 5mm RED!!