Class A Amplifier output stage, with
 - Bryston style output BJTs,
 - Mosfet drivers,
 - Allison style bias scheme,
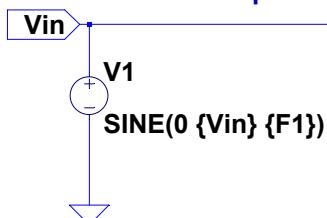 - Keantoken style current limit.

THD = 0.000037%
  @1khz, 12v, 4ohm

THD = 0.000019%
  @1khz, 12v, 8ohm

Paul Bysouth, April 18, 2009

.tran 0 {3/F1} 0 0.1u

Input must be
current limited,
and have low
source impedance.

Vin

V1
SINE(0 {Vin} {F1})

.param F1=1khz
.param Rload 4
.param Vin 12
;
.four {F1} 20 2 V(Vout)
.options plotwinsize=0 noopiter
.include irf610-model.txt
.include irf9610-model.txt

D1 Gled
C5 10µ
R5 100
KSA992 Q16

R7 47
FJL4215 Q1
V3 24
24 Watts
per BJT

5.5 volts
R3 100
M1 IRF610
13 mA
Q2 FJL4315
R8 47

C1 220pF

Q5 KSC1845
R1 560

Ibias = 2.2 Amps

Le1 100nH
Re1 0.33 Wirewound resistors
Re2 0.3
Le2 100nH

L1 0.5µH L1, R12 optional.
R12 10

D6 1N4148   D10 1N4148
D4 1N4148   D5 1N4148

R11 10
C11 100nF

Rload {Rload}

R13 15k

KSA992 Q6
R2 560

C2 220pF

R10 47
FJL4215 Q4

-4.4 volts
R4 100
IRF9610 M2

Q17 KSC1845
D2 Gled
C6 10µ
R6 100

R9 47
Q3 FJL4315
V4 24

Vout

--- C:\Documents and Settings\PaulB\My Documents\Spice\Small-ClassA\OP-sc-test4.asc ---