

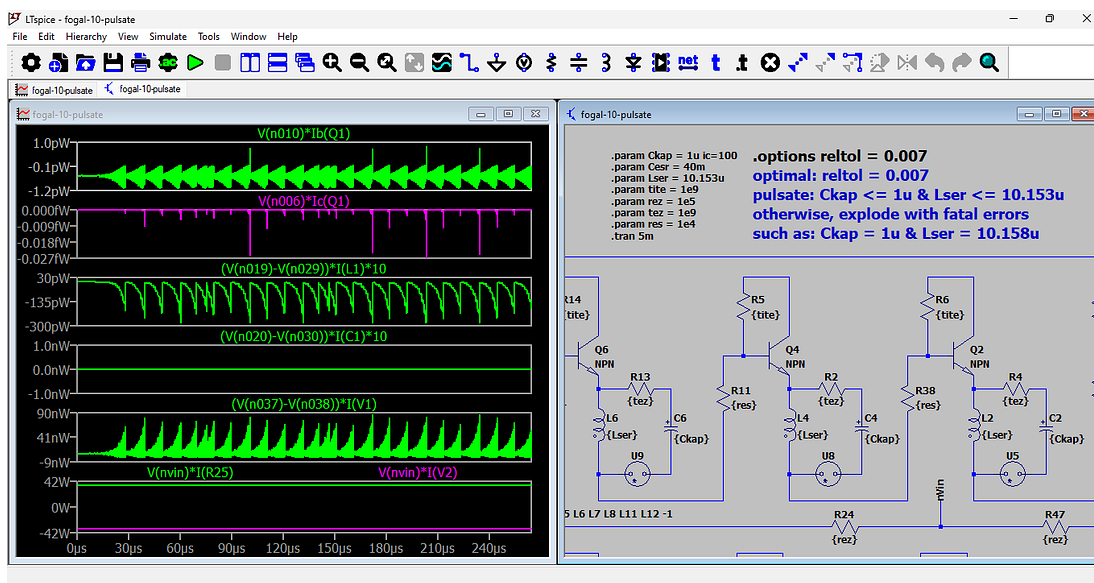
Made some Modifications to Fogal's Transistor Replication: Pulse Mode (low power) versus Explosion Mode.



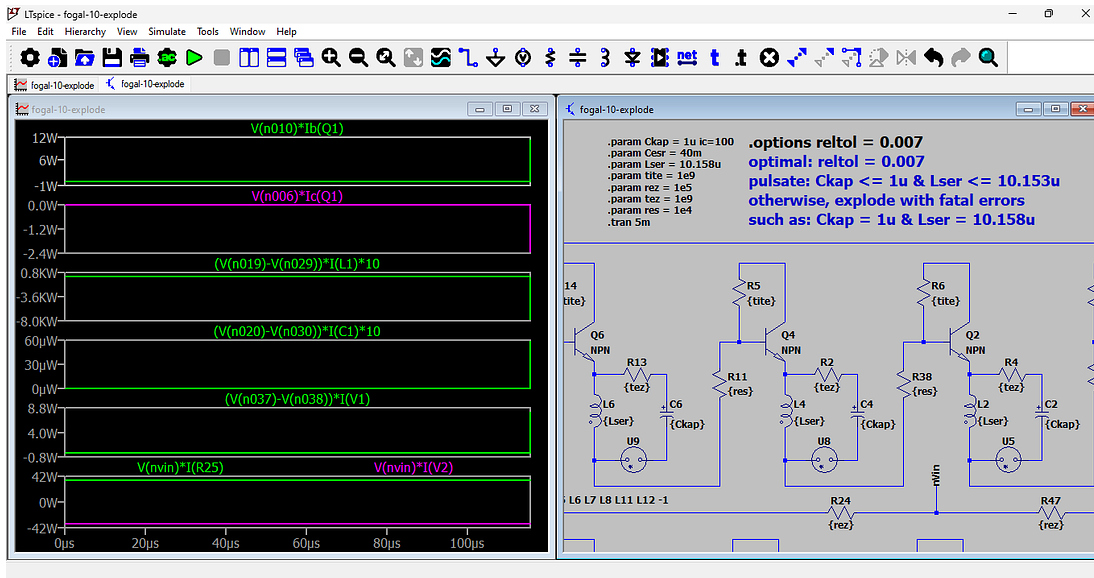
VINYASI

MAY 06, 2026

Pulse mode:



Explode mode:



[Download this pair of circuit variations](#) to my attempt at replicating Fogal's transistor.

Netlist for pulse mode:

* D:\Documents\Sims\LTSpice\2026\05 - May\06\fogal-10-pulsate.asc

* Generated by LTSpice 24.1.9 for Windows.

C1 N020 N030 {Ckap} Rser={Cesr}

L1 N019 N029 {Lser} Rser={Lser}

R1 N020 N019 {tez}

Q1 N006 N010 N019 0 NPN

R3 0 N010 {rez}

C2 N018 N028 {Ckap} Rser={Cesr}

L2 N017 N027 {Lser} Rser={Lser}

R4 N018 N017 {tez}

Q2 N005 N009 N017 0 NPN

R6 N005 N009 {tite}

C3 N012 N022 {Ckap} Rser={Cesr}

L3 N011 N021 {Lser} Rser={Lser}

R7 N012 N011 {tez}

Q3 N002 N001 N011 0 NPN

R9 N002 N001 {tite}

C7 N052 N062 {Ckap} Rser={Cesr}

L7 N051 N061 {Lser} Rser={Lser}

R19 N052 N051 {tez}

Q7 N036 N042 N051 0 NPN

R21 N036 N042 {tite}

C11 N050 N060 {Ckap} Rser={Cesr}

L11 N049 N059 {Lser} Rser={Lser}

R31 N050 N049 {tez}

Q11 N035 N041 N049 0 NPN

R33 N035 N041 {tite}

C12 N044 N054 {Ckap} Rser={Cesr}

L12 N043 N053 {Lser} Rser={Lser}

R34 N044 N043 {tez}

Q12 N032 N031 N043 0 NPN

R36 N032 N031 {tite}

V1 N037 N038 SINE(0 1m 4e5) Rser={res}

R37 N027 N010 {res}

R38 N025 N009 {res}

R42 N057 N041 {res}

R46 N059 N042 {res}

R47 N029 nVin {rez}

X§U1 N062 N061 neonbulb Vstrike=100 Vhold=50 Zon=2K Ihold=200u
Tau=100u

X§U2 N060 N059 neonbulb Vstrike=100 Vhold=50 Zon=2K Ihold=200u
Tau=100u

X§U3 N054 N053 neonbulb Vstrike=100 Vhold=50 Zon=2K Ihold=200u
Tau=100u

X§U4 N022 N021 neonbulb Vstrike=100 Vhold=50 Zon=2K Ihold=200u
Tau=100u

X§U5 N028 N027 neonbulb Vstrike=100 Vhold=50 Zon=2K Ihold=200u
Tau=100u

X§U6 N030 N029 neonbulb Vstrike=100 Vhold=50 Zon=2K lhold=200u
Tau=100u

C4 N016 N026 {Ckap} Rser={Cesr}

L4 N015 N025 {Lser} Rser={Lser}

R2 N016 N015 {tez}

Q4 N004 N008 N015 0 NPN

R5 N004 N008 {tite}

C5 N048 N058 {Ckap} Rser={Cesr}

L5 N047 N057 {Lser} Rser={Lser}

R8 N048 N047 {tez}

Q5 N034 N040 N047 0 NPN

R10 N034 N040 {tite}

R11 N023 N008 {res}

R12 N055 N040 {res}

X§U7 N058 N057 neonbulb Vstrike=100 Vhold=50 Zon=2K lhold=200u
Tau=100u

X§U8 N026 N025 neonbulb Vstrike=100 Vhold=50 Zon=2K lhold=200u
Tau=100u

C6 N014 N024 {Ckap} Rser={Cesr}

L6 N013 N023 {Lser} Rser={Lser}

R13 N014 N013 {tez}

Q6 N003 N007 N013 0 NPN

R14 N003 N007 {tite}

R15 N021 N007 {res}

X§U9 N024 N023 neonbulb Vstrike=100 Vhold=50 Zon=2K Ihold=200u
Tau=100u

C8 N046 N056 {Ckap} Rser={Cesr}

L8 N045 N055 {Lser} Rser={Lser}

R16 N046 N045 {tez}

Q8 N033 N039 N045 0 NPN

R17 N033 N039 {tite}

R18 N053 N039 {res}

X§U10 N056 N055 neonbulb Vstrike=100 Vhold=50 Zon=2K Ihold=200u
Tau=100u

R20 0 N006 {rez}

R22 N001 N037 {rez}

R23 N038 N061 {rez}

R24 nVin N031 {rez}

V2 nVin 0 6 Rser=10m

R25 nVin 0 1

```
.model NPN NPN

.model PNP PNP

.lib C:\Users\vinya\AppData\Local\LTspice\lib\cmp\standard.bjt

.param Ckap = 1u ic=100

.param Cesr = 40m

.param Lser = 10.153u

.param tite = 1e9

.param rez = 1e5

.param tez = 1e9

.param res = 1e4

.tran 5m

K0 L1 L2 L3 L4 L5 L6 L7 L8 L11 L12 -1

.options reitot = 0.007

* optimal: reitot = 0.007\npulsate: Ckap <= 1u & Lser <=
10.153u\notherwise, explode with fatal errors\nsuch as: Ckap = 1u & Lser
= 10.158u

* < < < GROUND

* < < < TOP OF MAST

.lib neonbulb.sub

.backanno
```

.end
