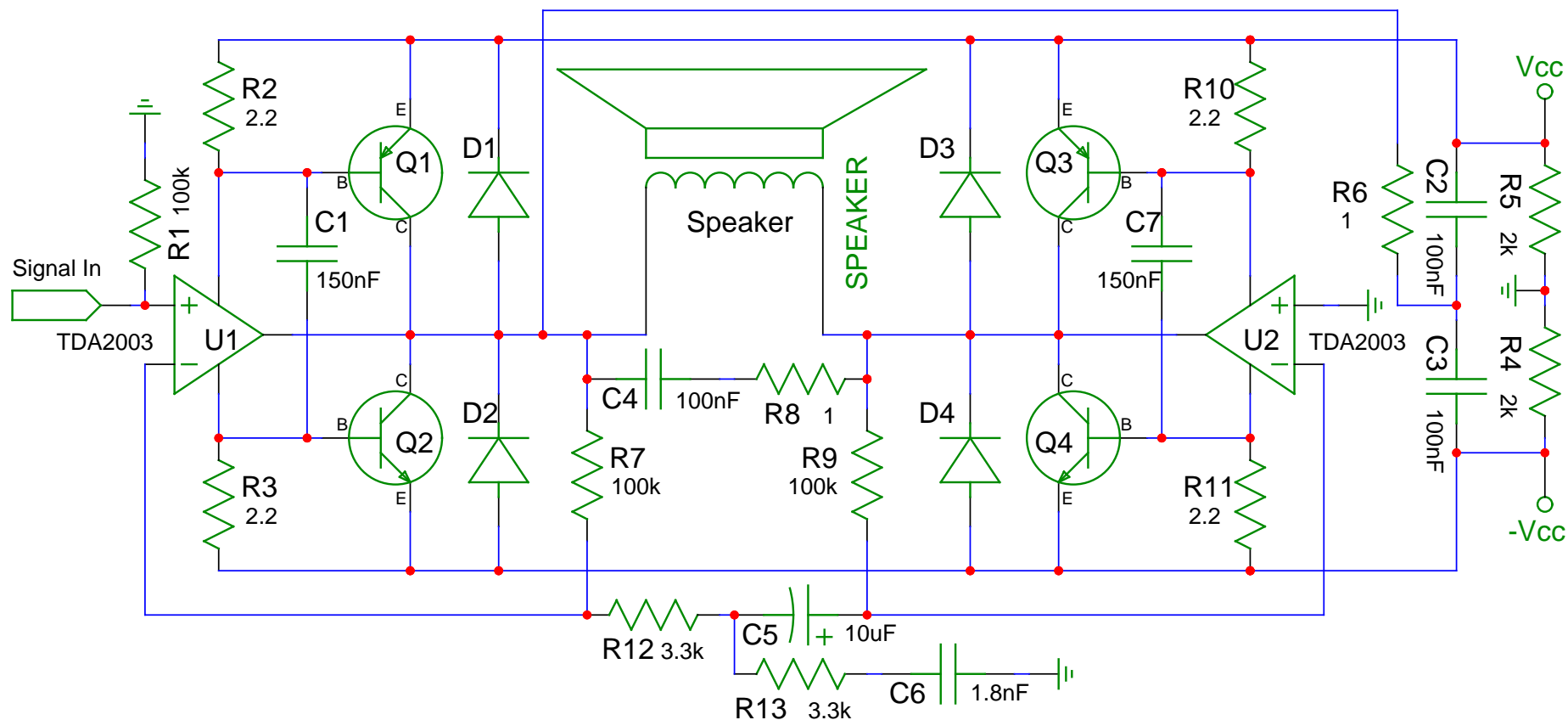


# Bridged Class-B Transistor Boosted Amplifier

2007-12-13



200 Watt Bridged Amplifier, 4-16ohm Speaker, 24-36v Power Rails, 5A.

U1+U2 TDA2003 is a Class B 4w amp (10w@10% distortion). Vsupply 8-18v. Quiescent = 50mA. Freq response = 40-15kHz. 40db max gain.

Boosted variation of Figure 18 from the TDA2003 data sheet (Fig 23 of TDA2002). TDA2003's are single supply power op-amps (as in, not dual rail).

PNP Transistors: KT818 or BD708. NPN Transistors: KT819 or BD705. Diodes are 1n400x types.

C4+R8 is the standard inductive load snubber. The regular op-amp output to ground snubber is missing.

The transistors seem backwards (swap PNP and NPN) compared to the more traditional boosters.

R7+R12+R13 (also R9) are the gain resistors? R2+R3+R10+R12 push more load to transistors instead of op-amps?

Where do transistors get their input signal? Why doesn't the bridge slave side have 2x resistance and half capacitance???

D1+D2+D3+D4 should prevent latching problems with voltage swings from heavy inductive loads. Also help bias transistors???

R7+R9+C5 do what???