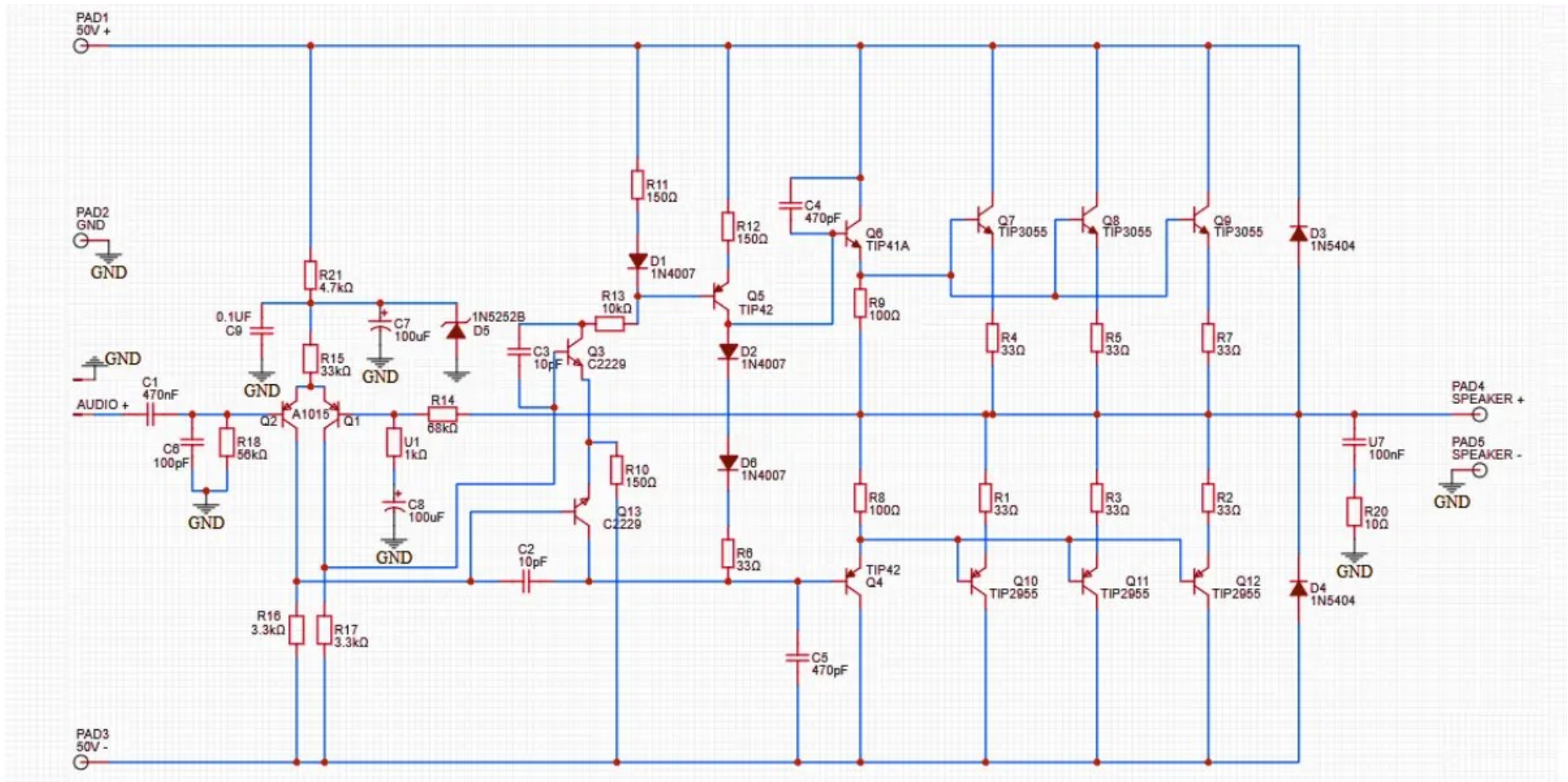


## 300 watt amplifier circuit diagram and components list



PAD4  
SPEAKER +  
PAD5  
SPEAKER -  
GND

Component Type	Reference	Value / Part Number	Quantity	Description
<b>Resistors</b>	R1 – R7	0.33Ω / 5W	7	Emitter resistors for output transistors
	R8, R9	100Ω	2	Base resistors for Q4 and Q5
	R10, R11, R12	150Ω	3	Base/bias resistors
	R13	10kΩ	1	Bias resistor
	R14	680Ω	1	Collector load resistor
	R15	3.3kΩ	1	Base resistor
	R16, R17	3.3kΩ	2	Voltage divider
	R18	56kΩ	1	Input bias resistor
	R20	100Ω	1	Output feedback/load resistor
	R21	4.7kΩ	1	Input resistor
	<b>Capacitors</b>	C1	470nF	1
C2, C3		10pF	2	Compensation/stability capacitors
C4, C5		470pF	2	High-frequency filter capacitors
C7, C8		100μF / 50V	2	Decoupling/bypass capacitors
C9		0.1μF	1	Input decoupling capacitor

Component Type	Reference	Value / Part Number	Quantity	Description
	C10 (U7)	100nF	1	Output decoupling capacitor
<b>Transistors</b>	Q1	A1015 (PNP)	1	Pre-amplifier
	Q2, Q3	C2229 (NPN)	2	Voltage amplifiers
	Q4, Q5	TIP42 (PNP)	2	Driver transistors
	Q6	TIP41A (NPN)	1	Driver transistor
	Q7, Q8, Q9	TIP3055 (NPN)	3	Power output transistors
	Q10, Q11	TIP2955 (PNP)	3	Power output transistors
<b>Diodes</b>	D1, D2, D6	1N4007	3	Bias protection
	D3, D4	1N5404	2	Output protection diodes
	D5	1N5252B (Zener 24V)	1	Voltage regulation
<b>Connectors</b>	PAD1, PAD3	+50V, -50V Power Inputs	2	Dual power supply input
	PAD2	GND	1	Ground terminal
	PAD4, PAD5	Speaker Output (+, -)	2	Output to speaker

Let me know if you'd like this in Excel, CSV, or PDF format.

