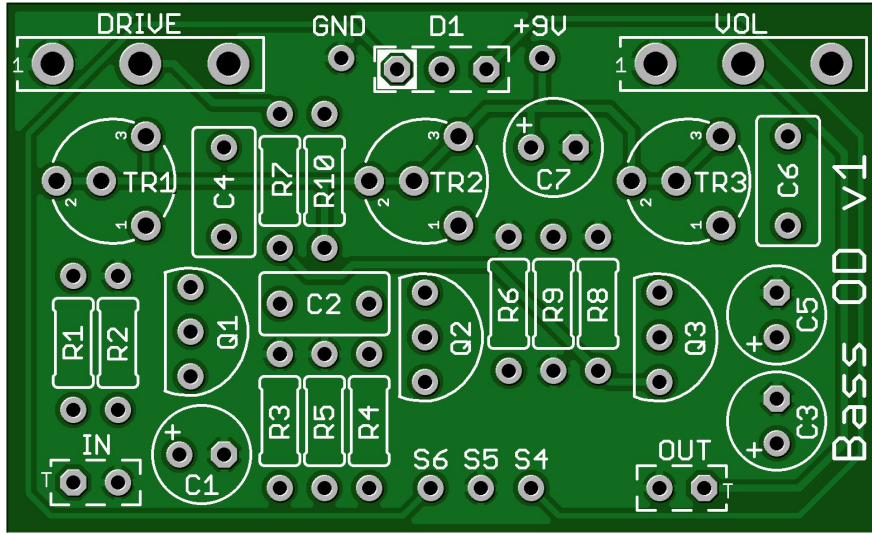


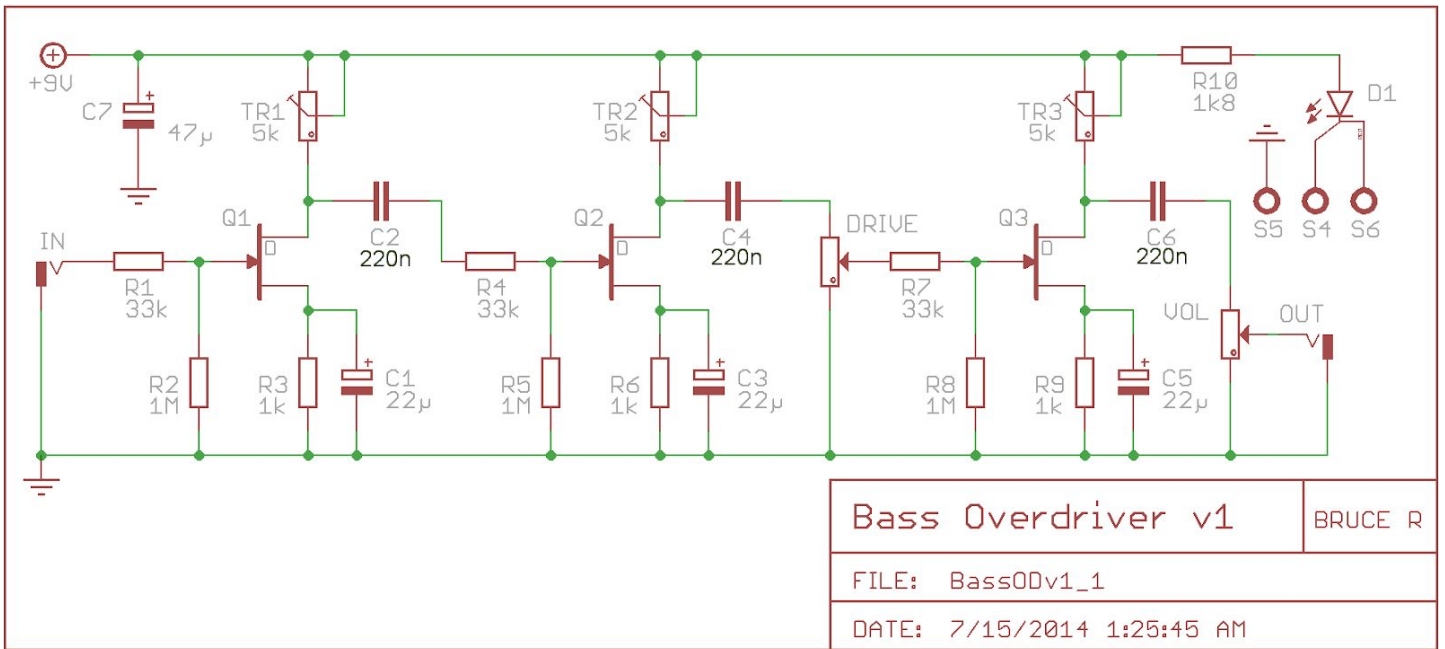
# Bass Overdriver v1

Bassists need dirt too! Replicate an SVT, sound like Chris Squire, Jack Bruce, Grand Funk, or just about anything in between! No one, until now, has offered something that works, with all the full, rich bottom-end that you need, while dialing up big vintage tube tones, bright modern slap sounds, gnarly distortions, or chiming Entwistle style tone.



Board Dimensions (W x H) 1.95" x 1.19" ca. 49.5mm x 30.2mm

## SCHEMATIC



## PARTS LIST

Part	Value
R1	33k
R2	1M
R3	1k
R4	68k
R5	1M
R6	1k

Part	Value
R7	68k
R8	1M
R9	1k
R10	1k8
C1	22μ
C2	220n

Part	Value
C3	22μ
C4	220n
C5	22μ
C6	220n
C7	47μ
Q1 – Q2	MPF102

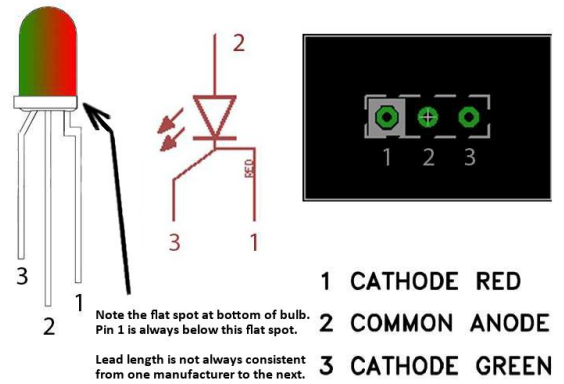
Part	Value
Q3	2N5457
DRIVE	100k Lin
VOL	100k Log
TR1 – TR3	5k*
D1	Bi-color CA LED

\* see text

## STATUS LED

D1 is a common anode bi-color LED. The diagram at right shows the pin-out, schematic symbol and pad connection for a common anode LED. The pin-out for the bi-color LED is typically (but not always) as follows:

1st Color Cathode	Is on the “ LED (see g degree be
Common Anode	Middle lea
2nd Color Cathode	45 degree



The lead 1 pad on the circuit board is marked with a white box.

When connected correctly, the LED will light red when power is applied and the circuit is in bypass mode. The LED will light green when in effects mode. If you wish to use a standard LED, connect the anode to the middle pad and the cathode to the right pad to show the circuit in effects mode. If you use a 3PDT wiring board that includes an LED, you can omit this LED and R8. R8 is the LED's Current Limiting Resistor (CLR). If you use a different LED, you may want to change this value to adjust LED brightness.

## BUILD NOTES

The three trim pots (TR1 – TR3) are used to set the bias voltages at the drains of Q1 – Q3 initially to 5V. The drain pin for each JFET is the top pad, looking at the diagram above, for each JFET.

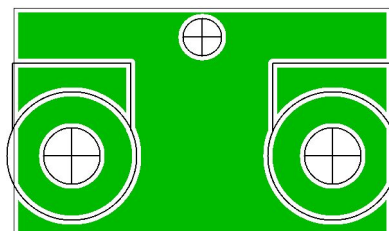
Although 5k $\Omega$  trim pots are recommended, 10k $\Omega$  pots can be used.

Although it is recommended to bias each JFET to 5V, there is nothing to stop you from experimenting with different bias voltage; suggestions are to bias Q1 and Q2 both to a slightly higher voltage (same bias voltage for both) and leave Q3 at 5V.

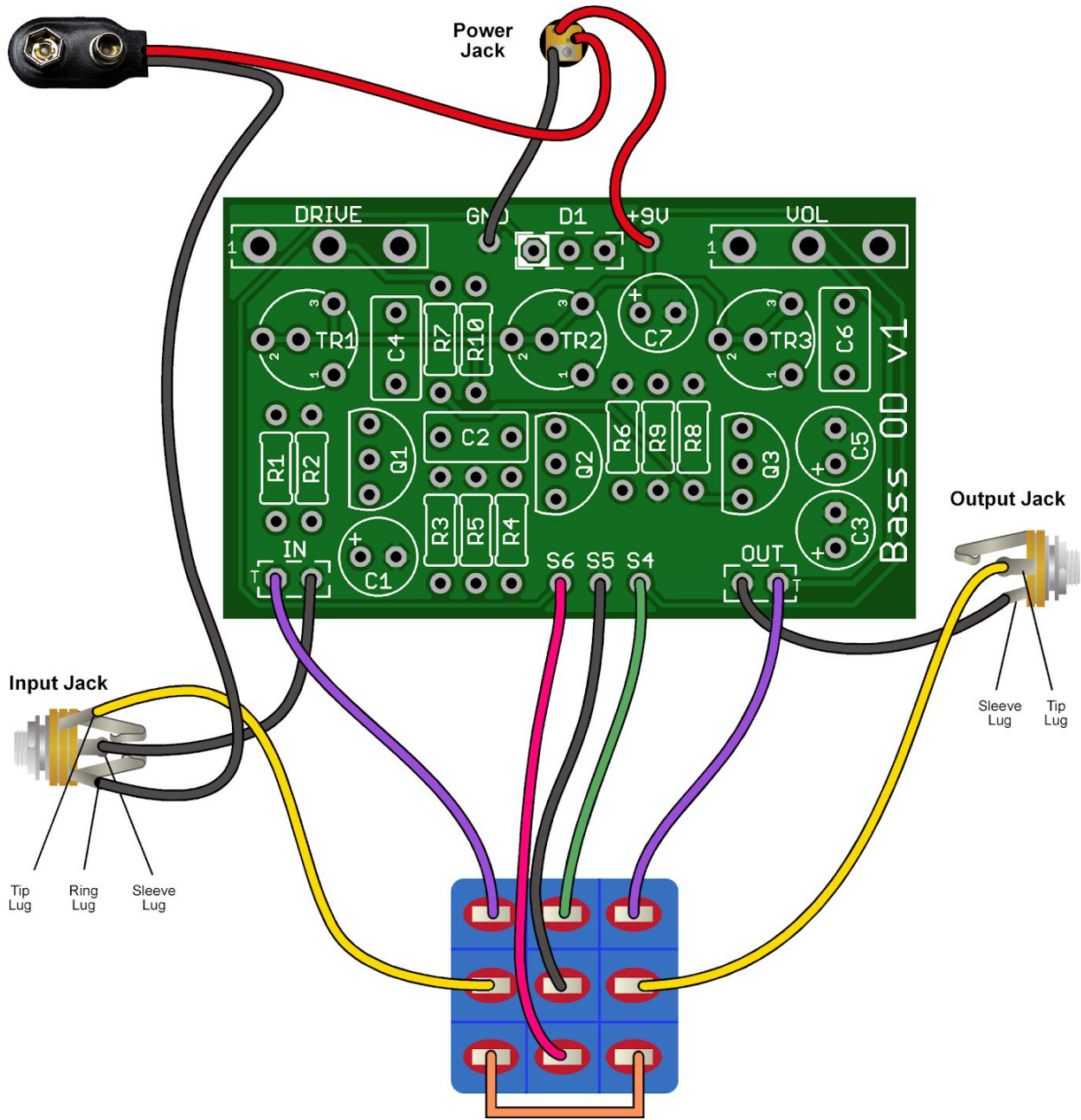
We have found through testing that for Bass a consistent 5v at Q1 – Q3, seems to be best.

## DRILL TEMPLATE

You may use the template below to assist with your drilling for the LED and pots. Make sure that the black outline of the PCB on your printout matches the dimensions of the PCB. PCB Dimensions are 1.95" x 1.19" ca. 49.5mm x 30.2mm. Make sure you select "Actual Size" in the print window when printing from Acrobat Reader.



## WIRING DIAGRAM



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