# Fat Cat Fuzz

It is a more modern and civilized tone than the Classic Fuzz Face circuit, and has found a niche with those who want an alternative but not too radically different sound. This PCB is designed to make your Fuzz tone Fat & Smooth. No transistors. All the Fuzz is coming from passive diodes resulting in smooth compression and harmonic overtones providing a smooth and transparent transition from clean to overloaded states.
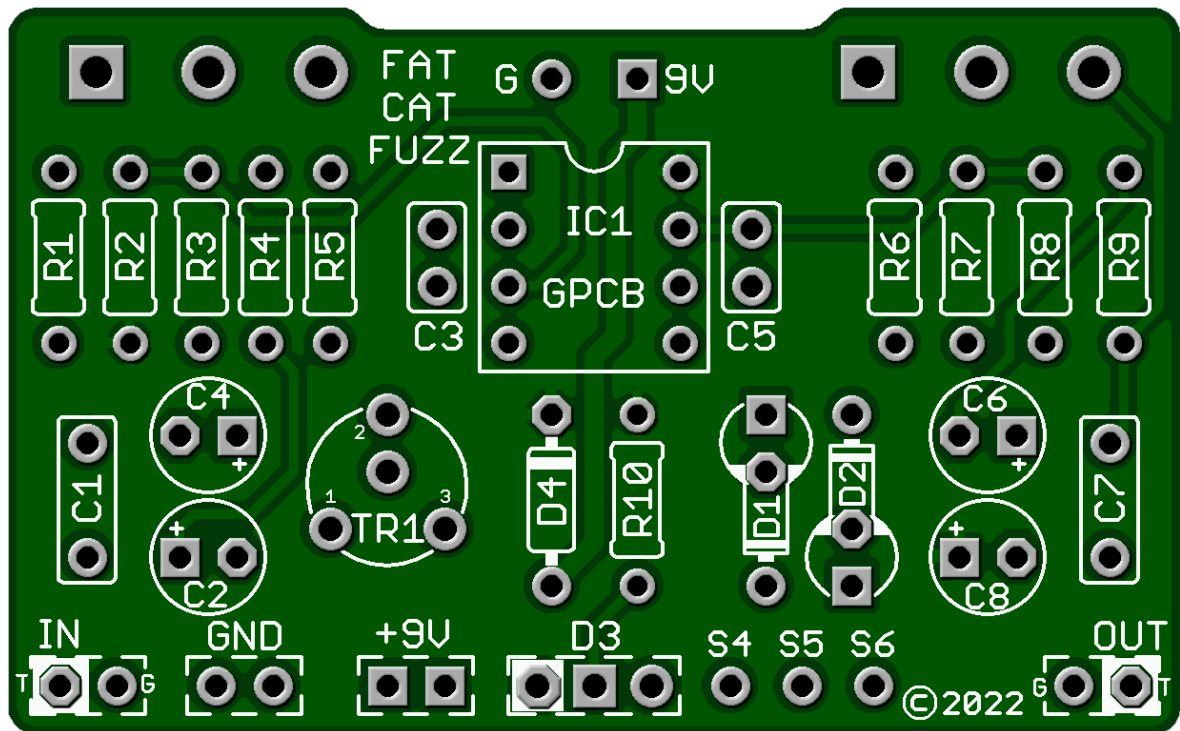
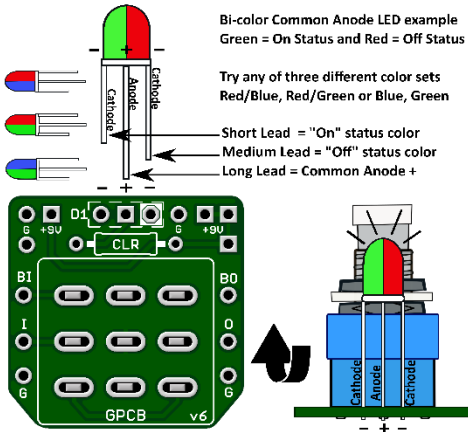Board Dimensions (W x H)   2.05" x 1.27"

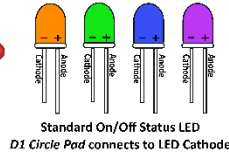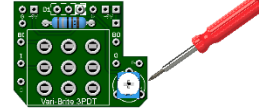|						
R1	1M	C1	100n	IC1	TL072
R2	1M	C2	2u2		
R3	1M	C3	560p	D1 D2	1N4148
R4	2k2	C4	2u2	D3	Status LED
R5	100k	C5	560p	D4	1N5817
R6	100R	C6	2u2	TR1	100k* Trim
R7	100k	C7	3n3		
R8	10k	C8	47u		
R9	1k5			Fuzz	C10K
R10	1k5			Volume	A100K

Notes:
- TR1 (sensitivity control) can be made into a pedal-mounted potentiometer by matching pot lugs with the board silkscreen numbering.
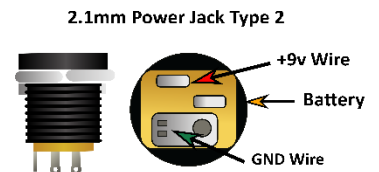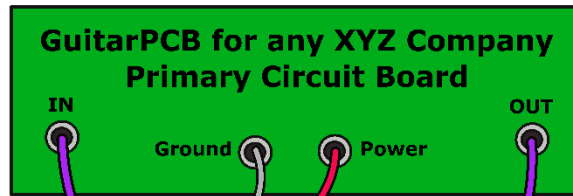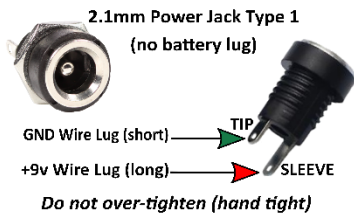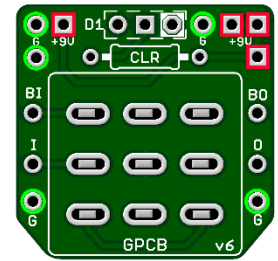- D1 / D2 – Feel free to try other diodes here. LEDs also sound great.

Schematic

Fat Cat Fuzz — BRUCE R

FILE: FatCatFuzz_v5_2022

DATE: 11/8/2022 3:43 PM

R6 100R · C5 560p · R7 100k · C4 2u2 · FUZZ C10k · TR1 100k SENSITIVITY · R4 2k2 · C2 2u2 · C3 560p · R5 100k · IC1B · R8 10k · C6 2u2 · R9 1k5 · D1 · D2 · C7 3n3 · VOL A100k · OUT · C1 100n · IN · R1 1M · R3 1M · R2 1M · IC1A · VA · S5 · S6 · S4 · D3 · R10 1k8* · D4 1n5817 · +9V · IC1 PWR · C8 47u · V+ · V−

Wiring Diagram

Drill Template

VOL · FUZZ · LED

Drill Tips: Measure your components before selecting a drill bit. We recommend drilling the pot holes, mounting the pots in the enclosure, and then soldering the pots to the board. You may also want to consider drilling the holes slightly larger than the threads.

GuitarPCB Tip Sheet

Bi-color Common Anode LED example
Green = On Status and Red = Off Status

Try any of three different color sets
Red/Blue, Red/Green or Blue, Green

Short Lead = "On" status color
Medium Lead = "Off" status color
Long Lead = Common Anode +

Try our 3PDT Vari-Bright version w/ on-board Trimmer to adjust brightness

Vari-Brite 3PDT

Standard On/Off Status LED
D1 Circle Pad connects to LED Cathode

○ Green = Ground Pads (5)
□ Red = + 9v Power Pads (4)
D1 = LED Pads
CLR = Current Limiting Resistor
BI = From Main Board IN
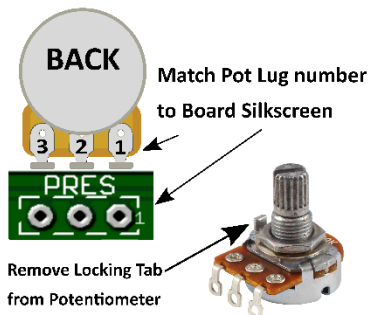BO = From Main Board OUT
I = To Jack Tip IN
O = To Jack Tip OUT

2.1mm Power Jack Type 1
(no battery lug)

GND Wire Lug (short)
+9v Wire Lug (long)

TIP
SLEEVE

Do not over-tighten (hand tight)

GuitarPCB for any XYZ Company Primary Circuit Board

IN   OUT
Ground   Power

2.1mm Power Jack Type 2

+9v Wire
Battery
GND Wire

T = Tip
R = Ring
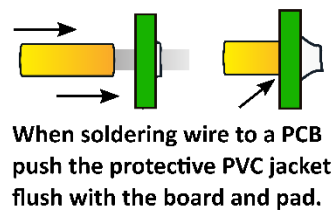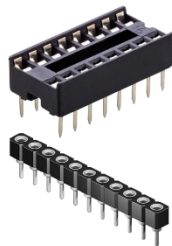S = Sleeve

Stereo Jack (T-R-S)
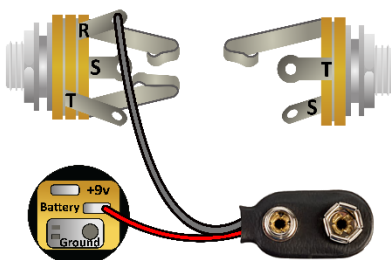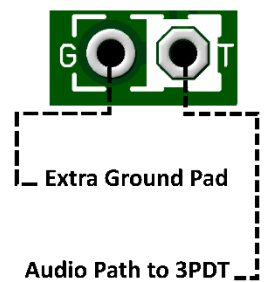
Mono Jack (T-S)
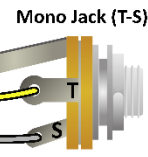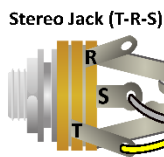
T = Tip
S = Sleeve

Multiple +9v and Ground Pads are convenient hookup points for additional circuits within the same enclosure. This also allows for diverse wiring schemes to suit indiviual needs.

BACK

Match Pot Lug number to Board Silkscreen

PRES

Remove Locking Tab from Potentiometer

Sockets make troubleshooting easier

When soldering wire to a PCB push the protective PVC jacket flush with the board and pad.

Main Board IN/OUT Pads

G   T

Extra Ground Pad

Audio Path to 3PDT

R
S
T

T
S

+9v
Battery
Ground

Input/Output Jack Wiring
T = Tip | R = Ring | S = Sleeve

A Stereo Jack is only needed if using a Battery. Otherwise use a Mono Jack
Battery Strap RED wire is connected to Power Jack
Battery Strap Black wire is connected to RING (stereo jack)
If wiring an LED to our 3PDT Wiring Board then S4, S5 & S6 are not needed