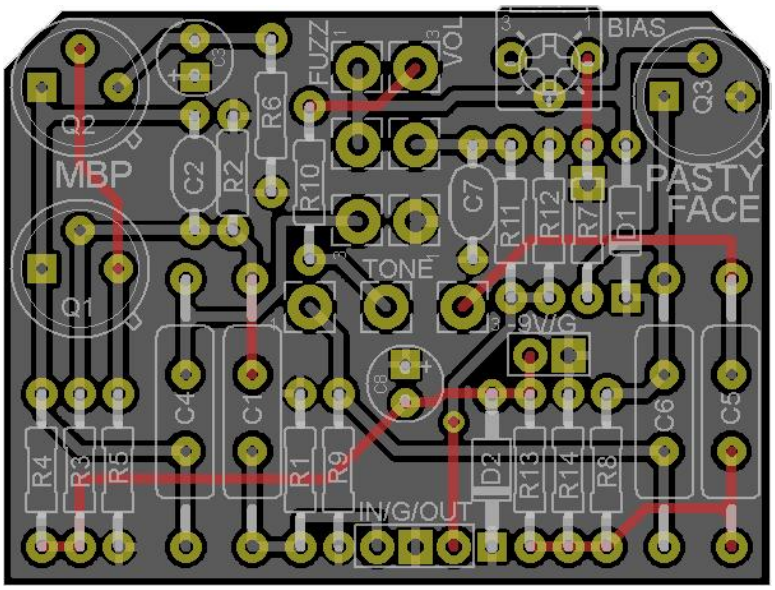
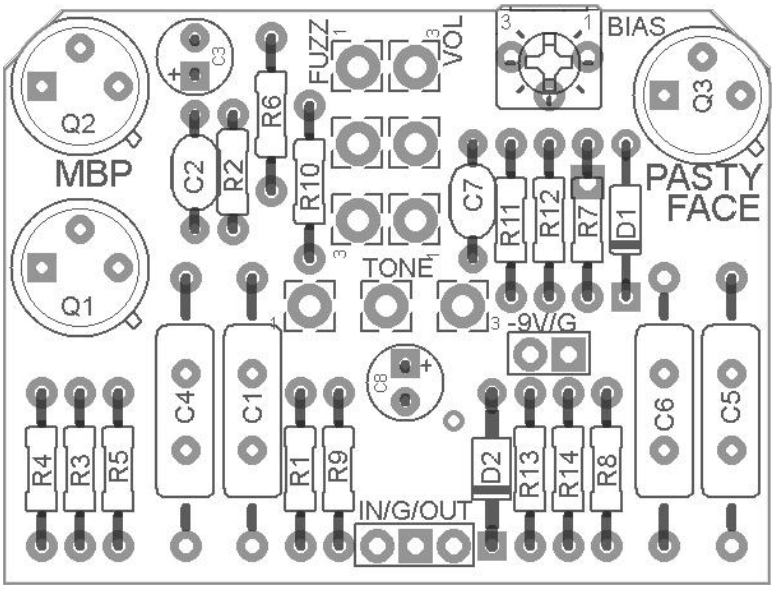
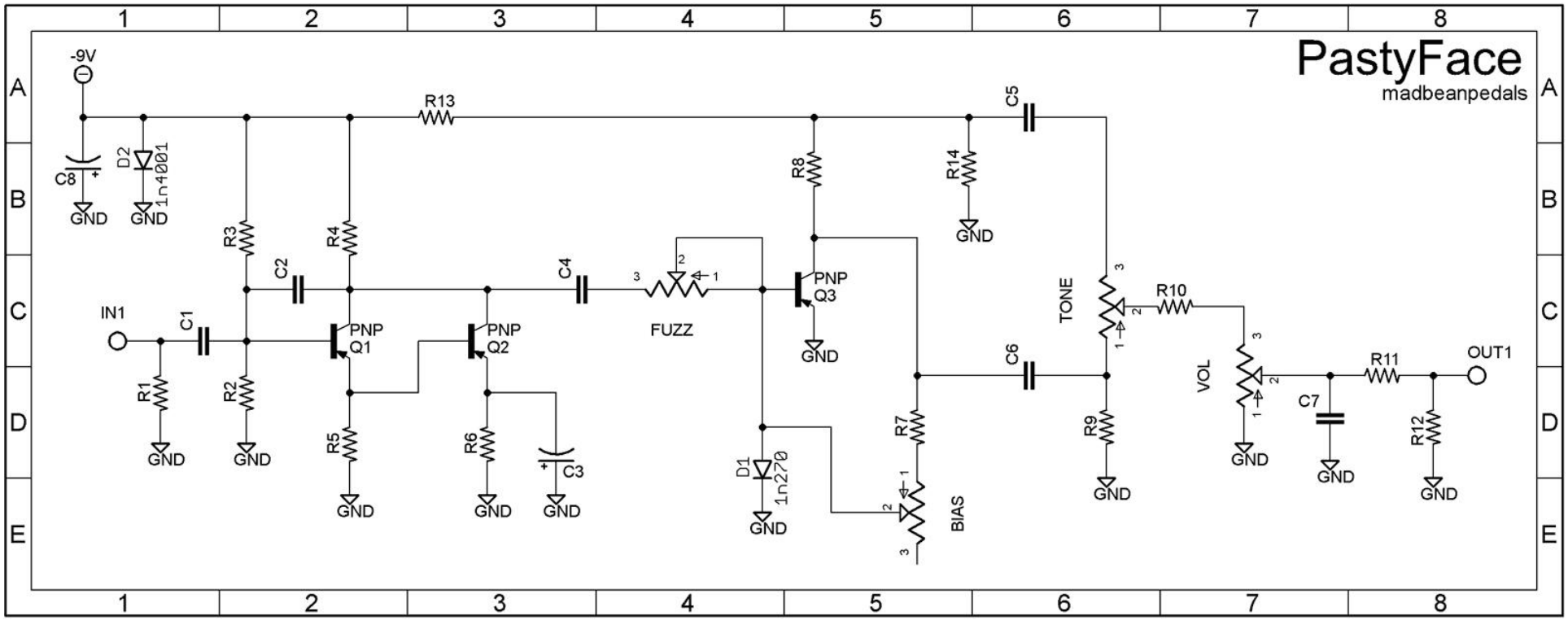
PASTYFACE

01.2012 madbeanpedals

PCB Dimensions: 2.0”W x 1.3”H






PastyFace
madbeanpedals
-9V
C8
D2
1n4001
GND
R13
R3
R4
C2
C4
R8
R14
C5
IN1
C1
PNP
Q1
PNP
Q2
FUZZ
PNP
Q3
TONE
R10
R1
R2
R5
R6
C3
D1
1n270
R7
BIAS
C6
R9
VOL
C7
R11
OUT1
R12

"Soulbender" ™

Resistors		Caps		Transistors	
R1	1M	C1	100n	Q1 - Q3	PNP GE
R2	47k	C2	100pF	**Diodes**	
R3	220k	C3	10uF	D1	1n270
R4	10k	C4	220n	D2	1N4001
R5	10k	C5	100n	**Trimpot**	
R6	3k3	C6	15n	BIAS	500k
R7	10k	C7	150pF	**Pots**	
R8	18k	C8	22uF	TONE	100kB
R9	10k			VOL	500kA
R10	jumper			FUZZ	100kB
R11	47k				
R12	1M				
R13	10k				
R14	omit				

Sola Sound Tonebender ™

Resistors		Caps		Transistors	
R1	omit	C1	100n	Q1 - Q3	PNP GE
R2	47k	C2	220pF	**Diodes**	
R3	220k	C3	10uF	D1	1n270
R4	10k	C4	220n	D2	1N4001
R5	10k	C5	100n	**Trimpot**	
R6	3k3	C6	2n2	BIAS	***
R7	10k	C7	omit	**Pots**	
R8	18k	C8	22uF	TONE	100kB
R9	10k			VOL	100kB
R10	jumper			FUZZ	100kB
R11	jumper				
R12	omit				
R13	10k				
R14	10k				

*** If you omit the 500k BIAS trimmer, make sure to jumper pins1 and 2 to connect **R7** to ground.

Park Fuzz Sound 3-Knob™

Resistors		Caps		Transistors	
R1	omit	C1	100n	Q1 - Q3	PNP GE
R2	100k	C2	220pF	**Diodes**	
R3	680k	C3	6.4uF	D1	1n270
R4	10k	C4	220n	D2	1N4001
R5	10k	C5	100n	**Trimpot**	
R6	3k3	C6	2n2	BIAS	***
R7	10k	C7	omit	**Pots**	
R8	18k	C8	22uF	TONE	100kB
R9	10k			VOL	100kB
R10	220k			FUZZ	100kB
R11	jumper				
R12	omit				
R13	10k				
R14	10k				

*** If you omit the 500k BIAS trimmer, make sure to jumper pins1 and 2 to connect R7 to ground.

Vox Tonebender MKIII ™

Resistors		Caps		Transistors	
R1	omit	C1	100n	Q1 - Q3	PNP GE
R2	100k	C2	220pF	**Diodes**	
R3	680k	C3	6.4uF	D1	1n270
R4	10k	C4	220n	D2	1N4001
R5	10k	C5	100n	**Trimpot**	
R6	3k3	C6	2n	BIAS	***
R7	10k	C7	omit	**Pots**	
R8	18k	C8	22uF	TONE	100kB
R9	10k			VOL	100kB
R10	220k			FUZZ	100kB
R11	jumper				
R12	omit				
R13	10k				
R14	10k				

*** If you omit the 500k BIAS trimmer, make sure to jumper pins1 and 2 to connect **R7** to ground.

Values for the Sola Sound, Park and Vox version courtesy of fuzzcentral.

What Is It?

The **PastyFace** is an open-ended, three-knob Tonebender fuzz. With it you can build several variations of this classic effect.

Controls

TONE: This control mixes between two low pass type filters.
FUZZ: The overall fuzz effect controlled by a variable resistor in the signal path.
VOL: The output level.
BIAS: This trimmer allows you to tweak the output of **Q3**.

Notes

A matched Tonebender set of germanium transistors is recommended. These can be purchased from Smallbear or similar suppliers. Smallbear usually supplies either a list or set of resistors that correctly bias the transistors in a standard Tonbender circuit. Feel free to use the values supplied instead of the ones listed in the BOM of the **PastyFace**, if you prefer.

The default set-up for the **PastyFace** is **POSITIVE GROUND**. If you are using PNP germaniums, make sure to use a positive ground wiring, i.e. connect the black lead of the battery to the round -9v pad, and the red battery lead to the square ground pad.

Alternatively, you can use the madbeanpedals **Road Rage** to power PNP fuzz using the standard center tip negative power supply. Consult the documentation for the **Road Rage** on the Projects Page for more info.
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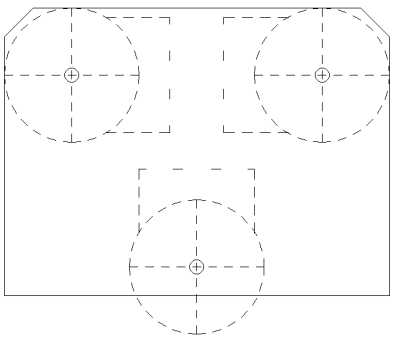
You 2can also build an NPN negative ground Tonebender with the **PastyFace**. If you are using NPN transistors, such as the BC109 or 2n3904, be sure to flip the direction of the electrolytic caps, flip **D2**, AND reverse the battery leads for a negative ground wiring. You can also omit **D1** from any NPN Tonebender.

The **PastyFace** allows you to use either axial or radial film caps for **C1**, **C4**, **C5** and **C6**. Radial spacing is 5mm. Axial spacing is 18mm.

The **BIAS** trimmer allows you to tweak the output of **Q3**. Simply adjust to taste using the minimum and maximum settings on the **FUZZ** control as your guide.

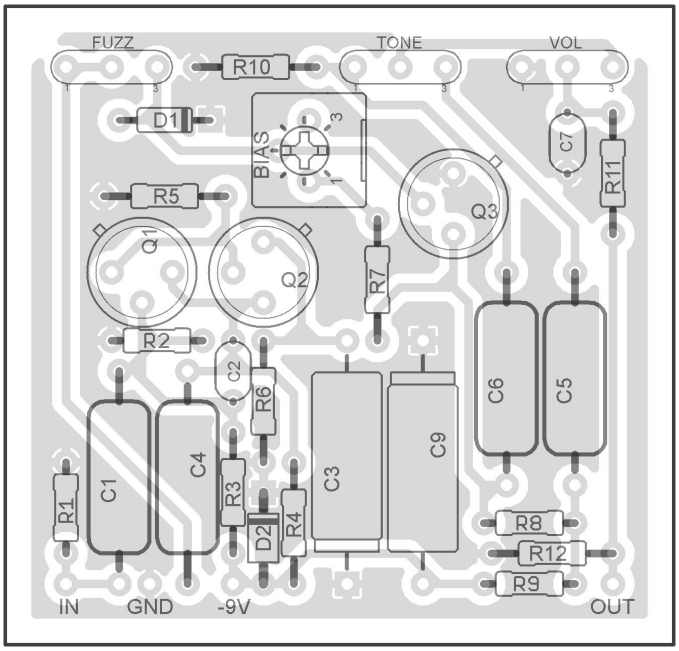
Drill markers for PCB mounted pots

(actual size)



Single Sided Layout

(This layout allows you to build the “Soulbender” or similar version – component numbering is slightly different than the schematic on pg.2)



2.22”W x 2.11”