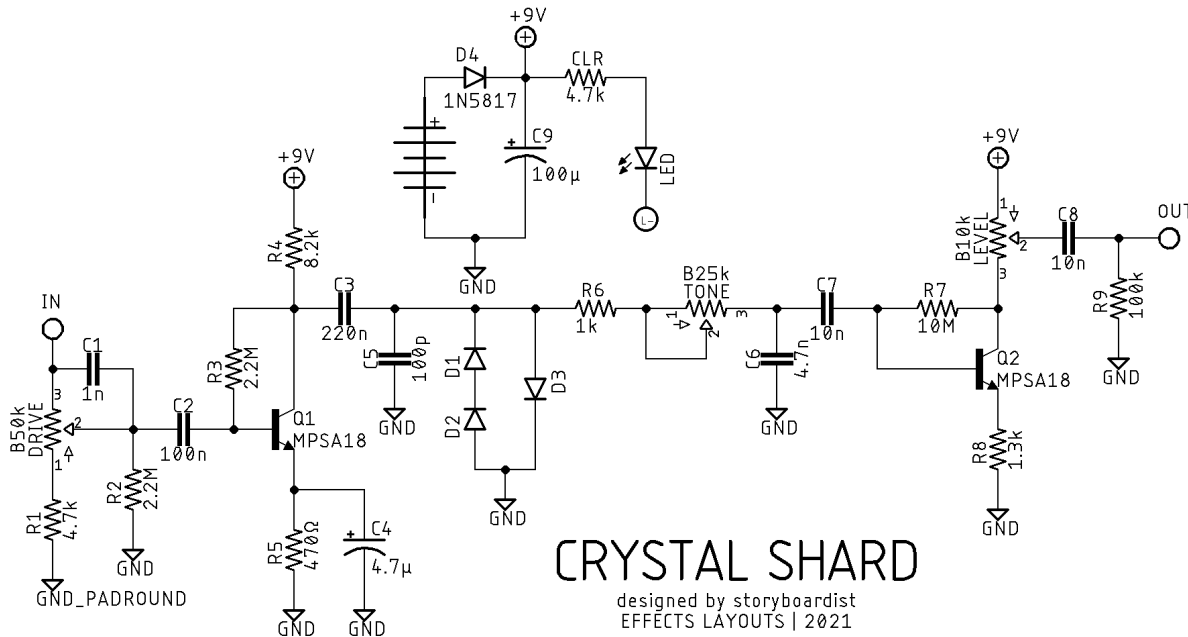


CRYSTAL SHARD

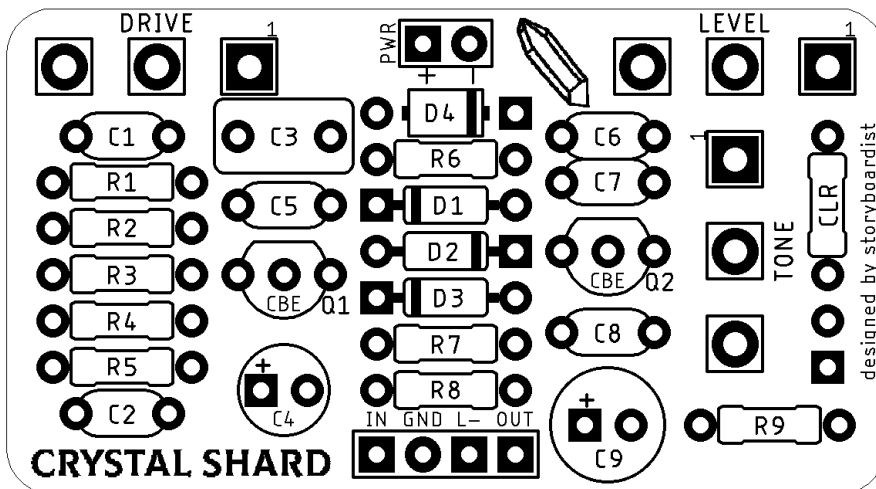
DESCRIPTION

The CRYSTAL SHARD is a simple overdrive circuit that consists of 2 transistor stages. The first stage is based on the first stage of the EQD Chrysalis, with the second stage based on the EQD Arrows, and makes for a fun mashup of 2 great pedals. It's ripe for experimentation, especially with D1-3 and the cap values.

SCHEMATIC



LAYOUT



BOM

Resistors

R1	4.7k
R2	2.2M
R3	2.2M
R4	8.2k
R5	470Ω
R6	1k
R7	10M
R8	1.3k
R9	100k
CLR	4.7k

Capacitors

C1	1n
C2	100n
C3	220n
C4	4.7μ
C5	100p
C6	4.7n
C7	10n
C8	10n

C9	100μ
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Semiconductors

D1	1N4148
D2	1N4148
D3	BAT41
D4	1N5817
Q1	MPSA18
Q2	MPSA18

Electromechanical

Drive	B50k
Tone	B25k
Level	B10k

Notes

D1-3 can be whatever you want to use. Socket and experiment. Using 1N4148s for all 3 sounds good and I suspect 1N60Ps would as well.

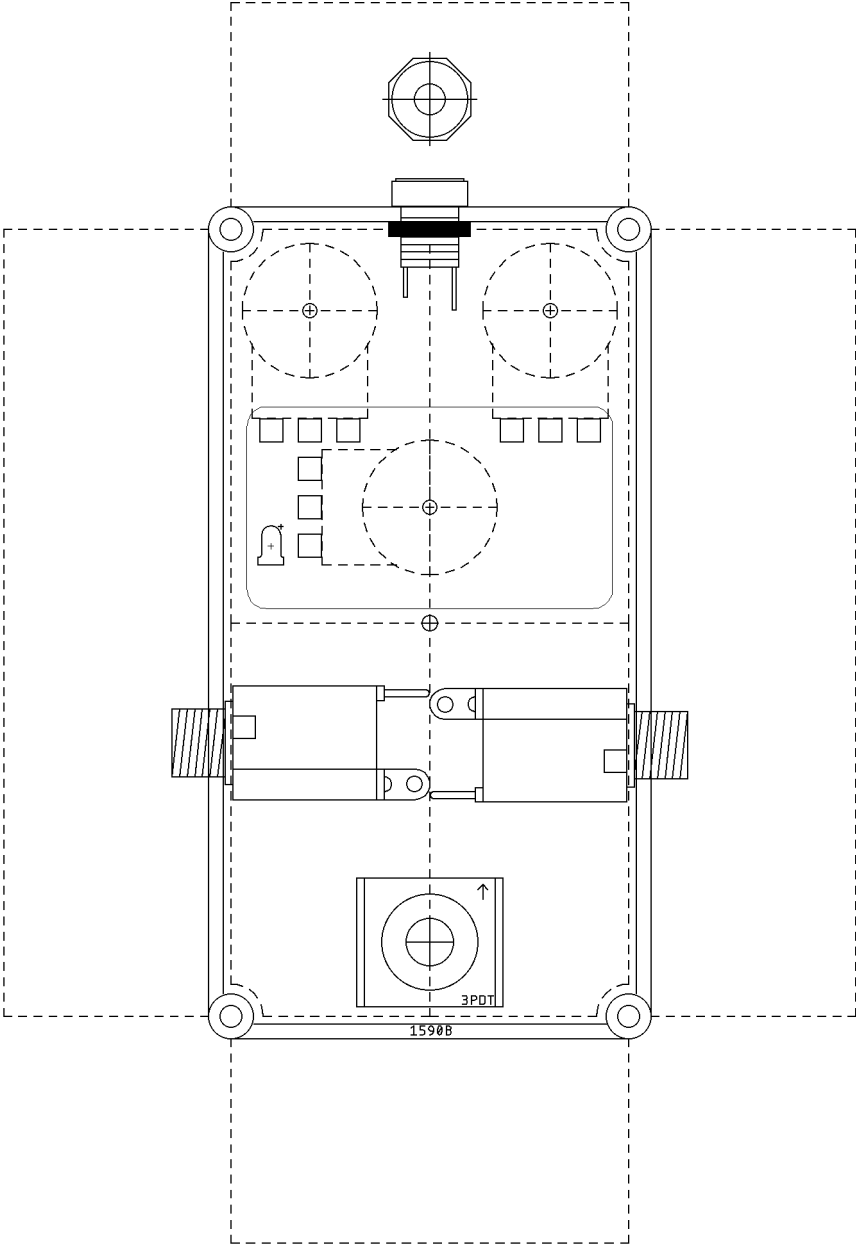
Alternatives to Q1-2 would be 2N5089, BC549C, etc.

SHOPPING LIST

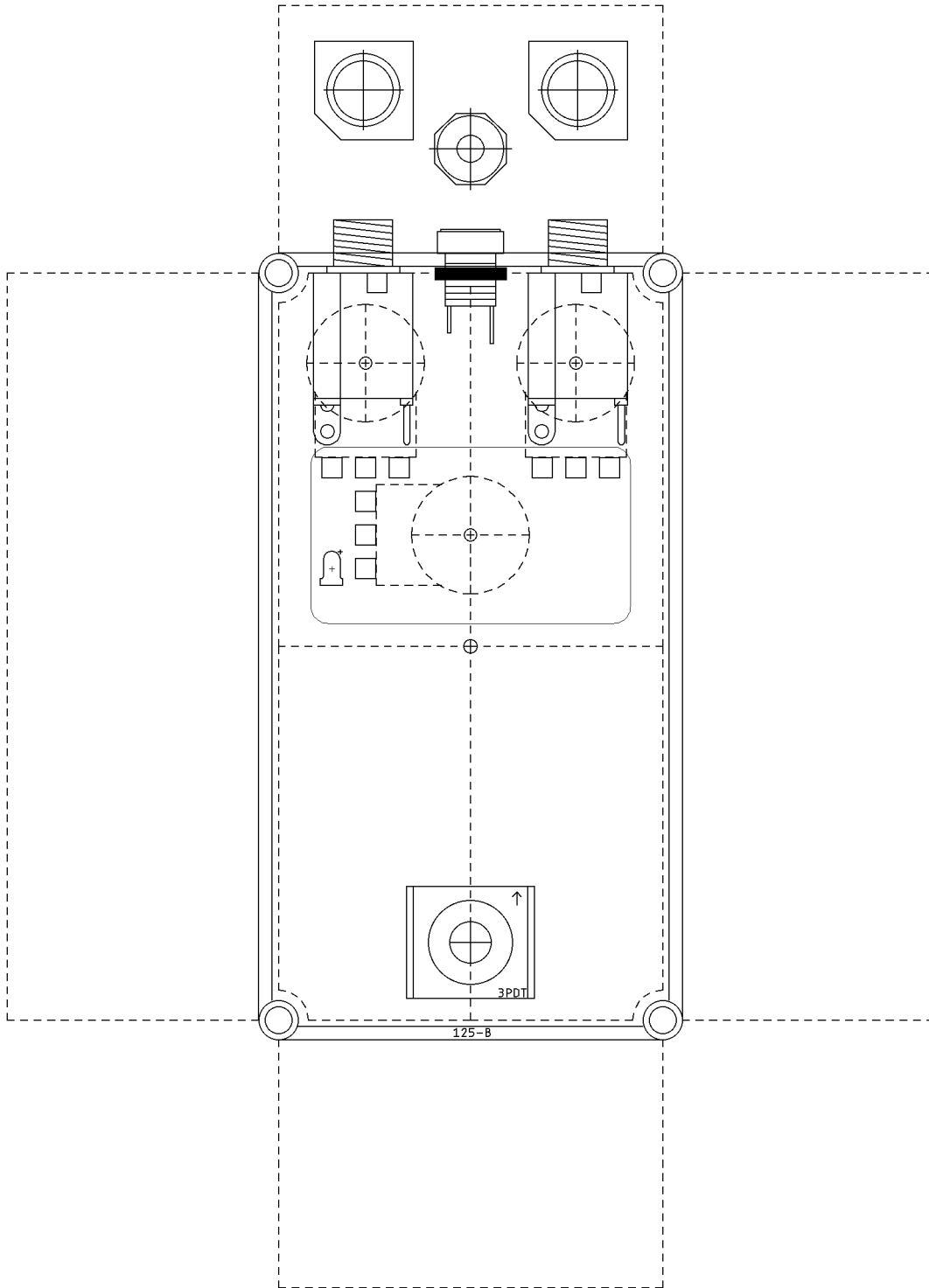
Value	Type (suggested)	Quantity
470Ω	¼ watt metal or carbon film	1
1k	¼ watt metal or carbon film	1
1.3k	¼ watt metal or carbon film	1
4.7k	¼ watt metal or carbon film	2
8.2k	¼ watt metal or carbon film	1
100k	¼ watt metal or carbon film	1
2.2M	¼ watt metal or carbon film	2
10M	¼ watt metal or carbon film	1
100p	Ceramic	1
1n	Film	1
4.7n	Film	1
10n	Film	2
100n	Film	1
220n	Film	1
4.7μ	Electrolytic (25v+)	1
100μ	Electrolytic (25v+)	1
1N4148	Silicon switching diode	2
1N5817	Schottky rectifier diode	1

BAT41	Schottky signal diode	1
MPSA18	BJT	2

DRILL TEMPLATE (1590B)



DRILL TEMPLATE (125B)



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