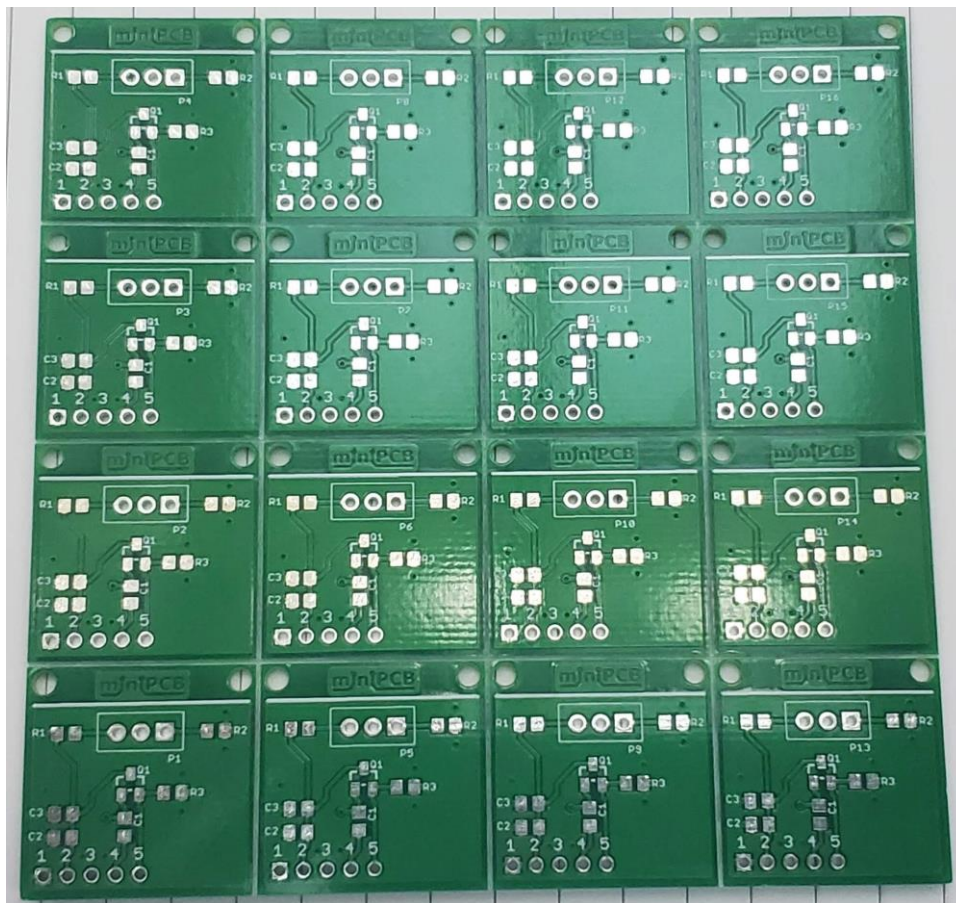


# Emitter Follower Amplifier

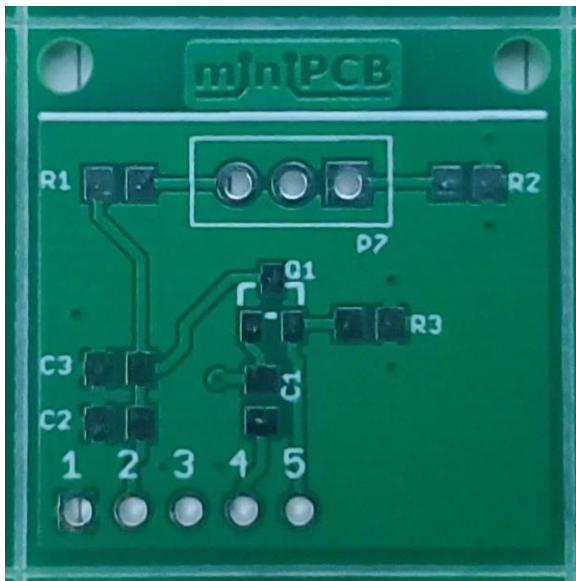
## General Information

- **Group:** Transistor Amplifiers (04B)
- **Circuit:** Emitter Follower Amplifier
- **Variant:** SMD, single supply, DC bias trimpot, AC coupled input, DC coupled output
- **Pieces per Panel:** Sixteen (16)
- **Description:** High quality PCB panel with v-scores to easily separate the pieces.

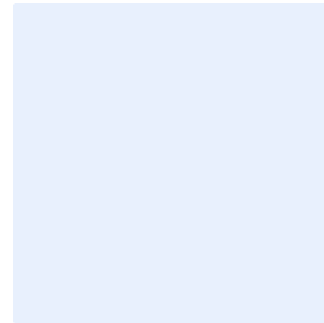
## Panel



## Single Board

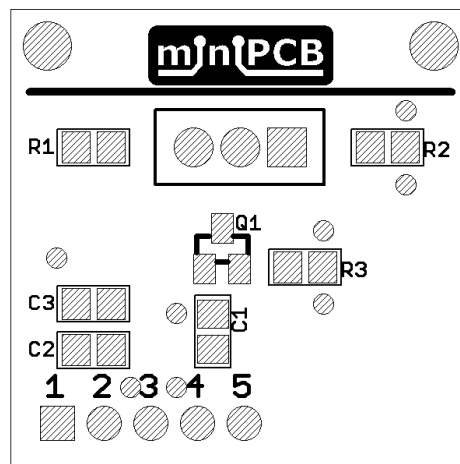


Top (Component) Side

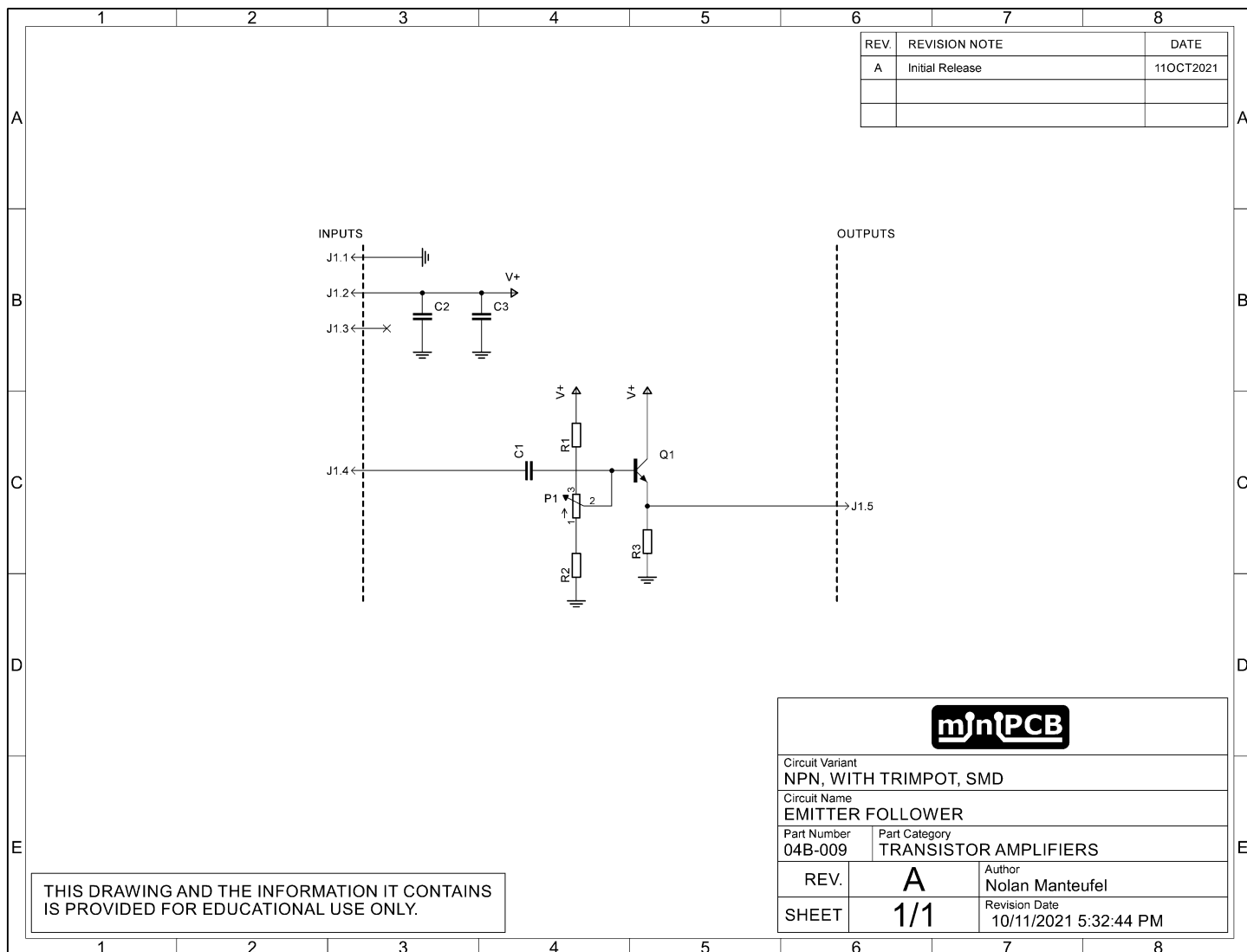


Bottom (Solder) Side

## Part Locations



## Schematic



|                      |                    |
|----------------------|--------------------|
| <b>Student Name:</b> | <b>Date:</b>       |
| <b>Class:</b>        | <b>Assignment:</b> |

## Part List

| # | Name | Type        | Footprint  | Values | Notes                              |
|---|------|-------------|------------|--------|------------------------------------|
| 1 | R1   | Resistor    | 0805       |        |                                    |
| 2 | R2   | Resistor    | 0805       |        |                                    |
| 3 | R3   | Resistor    | 0805       |        |                                    |
| 4 | C1   | Capacitor   | 0805       |        |                                    |
| 5 | C2   | Capacitor   | 0805       |        |                                    |
| 6 | C3   | Capacitor   | 0805       |        |                                    |
| 7 | Q1   | Transistor  | SOT-23     |        | Pinout (123: BEC GSD)              |
| 8 | P1   | Trimpot     | 0.1" pitch |        |                                    |
| 9 | J1   | Header Pins | 5-pin      | N/A    | 0.1" pitch (distance between pins) |

## Performance Characteristics

| Parameter           | Units                 | Target | Measured | Notes   |
|---------------------|-----------------------|--------|----------|---|
| Supply Voltage      | VDC                   |        |          |   |
| Quiescent Current   | mA                    |        |          |   |
| Input Impedance     | Ohms                  |        |          | Measure near the center of the frequency pass band. |
| Output Impedance    | Ohms                  |        |          |   |
| Low Freq. -3dB      | Hz                    |        |          |   |
| High Freq. -3dB     | Hz                    |        |          |   |
| Voltage Gain, $A_v$ | $V_{out} \div V_{in}$ |        |          | Measure near the center of the frequency pass band. |
| Current Gain, $A_i$ | $I_{out} \div I_{in}$ |        |          |   |
| Power Gain, $A_p$   | $A_v \times A_i$      |        |          |   |

## Supporting Documents

| # | Doc. No. | Document Type | Document Title                   |
|---|----------|---------------|----------------------------------|
| 1 | DN.001   | Design Notes  | Selecting Parts for Your miniPCB |

## Revision History

| Revision | Note            | Date      |
|----------|-----------------|-----------|
| A        | Initial Release | DDMMYYYYY |
|          |                 |           |

## Document Control

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