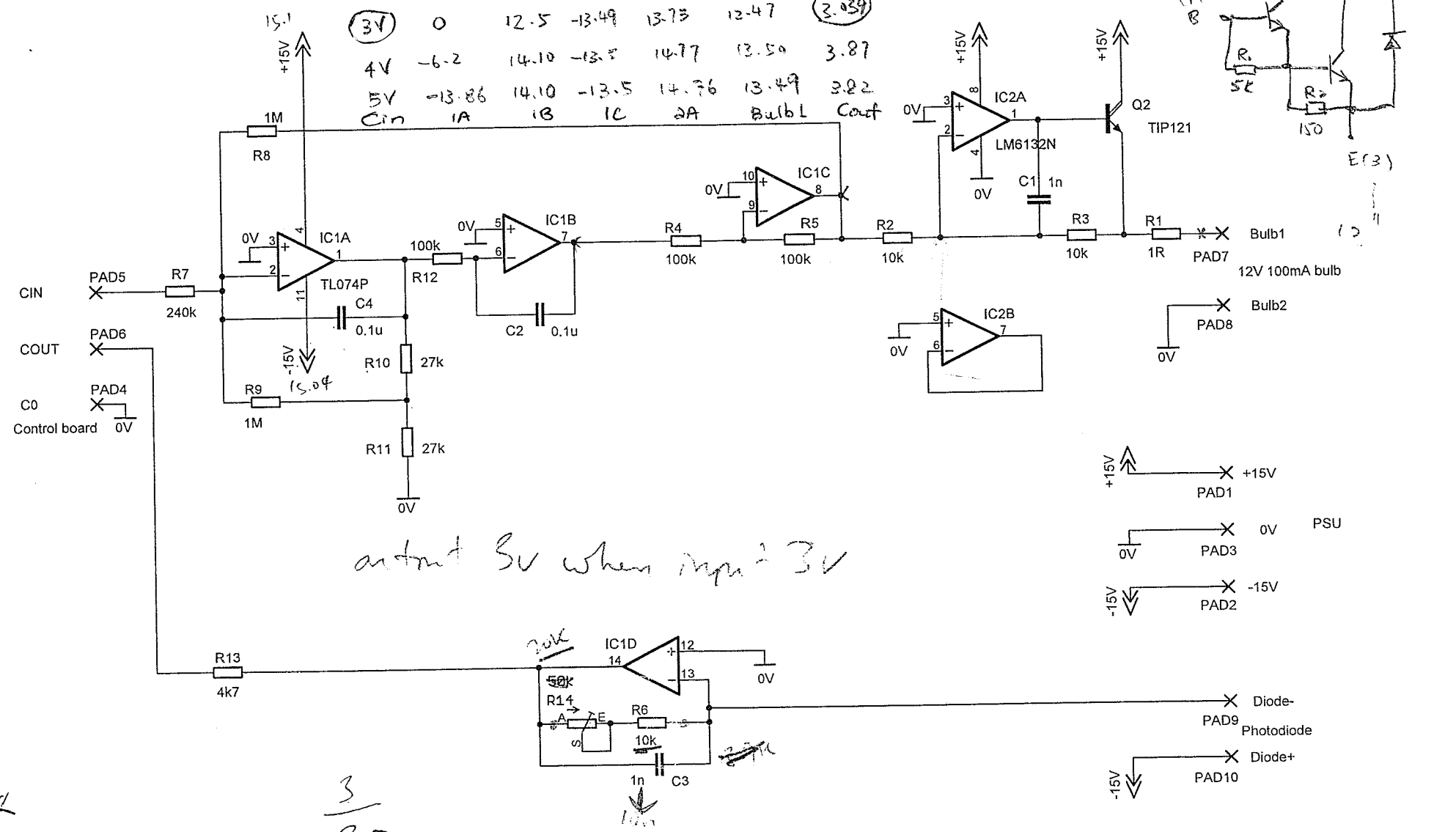


| | | | | | | |
|------|--------|-------|--------|-------|-------|---------|
| 1.2V | 0 | 5.26 | -5.24 | 6.4 | 5.25 | 0.18 |
| 1.5 | 6 | 6.26 | -6.26 | 7.46 | 6.24 | 0.3 |
| 2V | 0 | 8.36 | -8.36 | 9.56 | 8.34 | 0.9 |
| 2.5V | 0 | 10.44 | -10.44 | 11.46 | 10.42 | 1.842 |
| (3V) | 0 | 12.5 | -13.49 | 13.73 | 12.47 | (3.039) |
| 4V | -6.2 | 14.10 | -13.5 | 14.77 | 13.50 | 3.87 |
| 5V | -13.86 | 14.10 | -13.5 | 14.76 | 13.49 | 3.82 |
| Cin | IA | IB | IC | 2A | Bulb1 | Cout |

13766



output 3v when input 3v

14044

3/8

C1 1n
 C2 0.1u
 C3 ~~1n~~ 10nF
 C4 0.1u
 IC1 TL074P
 IC2 LM6132BIN (1150284 Farnell)
 Q2 TIP121
 R1 1R -
 R2 10k -
 R3 10k -
 R4 100k -
 R5 100k -
 R6 10k
 R7 240k -
 R8 1M -
 R9 1M -
 R10 27k -
 R11 27k -
 R12 100k -
 R13 4k7 -
 R14 20k 50k 1/21

Off-board:

Bulb 12v 100mA (as per current expt) with suitable holder
 Photodiode: S5971 (RS)

Notes:

Pads are off-board connections (photodiode connect may be on board if this works mechanically). Connections to control board should be two BNC connections to LPC2138 board.

Photodiode + is anode.

LM6132N has same pinout as TL072 DIL8 (standard dual op-amp)

TIP121 is TO220 and should be PCB mounted with a small heatsink attached

All resistors are 1/4 or 1/3 W, 2%

All capacitors are 5% except C1, C3, which can be ceramic any tolerance.

R14 should be a trimmer resistor for initial board setup.

The lightbulb is a 12V 100mA bulb as per the original experiment

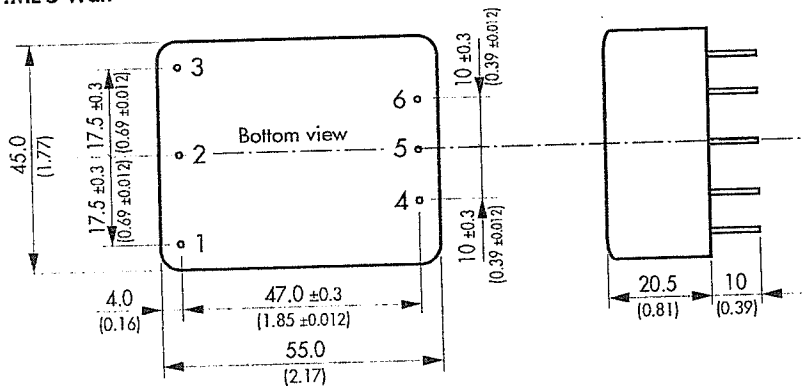
EE 113.9.97

R.S. 564-891

Buco Hammer

Outline Dimensions mm (inches)

TML 5 Watt



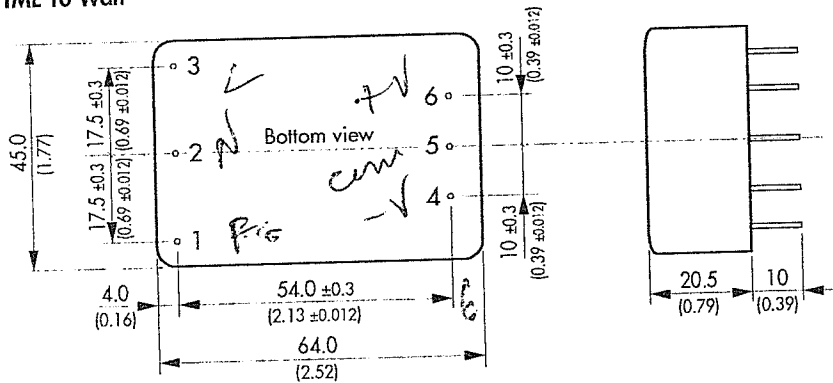
Pin diameter \varnothing 1.0 mm

Weight: 80 g (2.8 oz)

| Pin-Out | | |
|---------|--------|--------|
| Pin | Single | Dual |
| 1 | FG | FG |
| 2 | AC(N) | AC(N) |
| 3 | AC(L) | AC(L) |
| 4 | -V out | -V out |
| 5 | NC | Common |
| 6 | +V out | +V out |

Free 119-6508

TML 10 Watt



Pin diameter \varnothing 1.0 mm

Weight: 100 g (3.5 oz)

| Pin-Out | | |
|---------|--------|--------|
| Pin | Single | Dual |
| 1 | FG | FG |
| 2 | AC(N) | AC(N) |
| 3 | AC(L) | AC(L) |
| 4 | -V out | -V out |
| 5 | NC | Common |
| 6 | +V out | +V out |

Free 119-6508

120-5048

2.5 x 1.8

() = Inches

Tolerances = 0.5mm (0.02)

418-1975

Specifications can be changed without notice

<http://www.tracopower.com>