Curso

Cadeira

Title – Report Template Martim c: [EN]

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Table 1: Comparison of Key Parameters for MCP6001, TL084, and LM324

Characteristic	MCP6001	TL084	LM324
Max Output (V)	$(V+) - 25mV$	$(V+)$	$(V+) - 1.5V$
Min Output (V)	$(V-) + 25mV$	$(V-) + 1.5V$	$(V-) + 150mV$
Supply Range (V)	$1.8V$ to $6.0V$	$4.5V$ to $40V$	$3V$ to $36V$
Offset (mV)	$\pm 4.5mV$	$1mV$	$\pm 3mV$
Max Output (mA)	$\pm 23mA$ (5.5V)	$10mA$	$\pm 30mA$
Idle Consumption	$100\mu A$	$1.4\ mA$	$240\mu A$

Figure 1: Logo da Nova FCT

$$\begin{cases} R(283,15) = 1,998 \cdot 10^4\ \Omega \\ R(298,15) = 10^4\ \Omega \\ R(313,15) = 0,5282 \cdot 10^4\ \Omega \end{cases} \Leftrightarrow \begin{cases} A = 1,3092 \cdot 10^{-3} \\ B = 2,1439 \cdot 10^{-4} \\ C = 9,6600 \cdot 10^{-8} \end{cases} \tag{1}$$

```
Fdz
printf('Polos:␣');
PlFdz
%figure(3);
pzmap(Fdz);
%figure(4);
step(Fdz);
```

Listing 1: Matlab code example

- item 1

  ...

- item n

1. Butterworth

2. Chebyshev

3. Elliptic

4. Bessel

   In the application in study, the group delay is a critical factor because the ECG signal is a time-domain signal, and the phase distortion can lead to a misinterpretation of the signal. So it is safe to say that the Bessel filter is the best choice for this application.
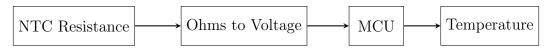

Figure 2: NTC's block diagram