

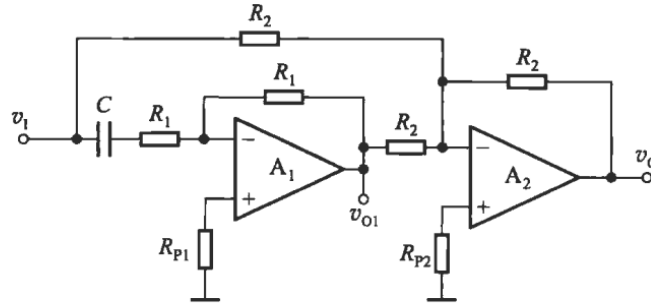
Homework for Chapter 9

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10.3.3 电路如图题 10.3.3 所示, 设 A_1 、 A_2 为理想运放。(1) 求 $A_1(s) = \frac{V_{o1}(s)}{V_i(s)}$ 及 $A(s) = \frac{V_o(s)}{V_i(s)}$; (2) 根据导出的 $A_1(s)$ 和 $A(s)$ 表达式, 判断它们分别属于什么类型的滤波电路。



图题 10.3.3

1 Problem 1

Adjust the value of R_1 and R_3 until:

$$V_{C2} = \frac{V_{CC}}{2} = 6 \text{ V}$$

2 Problem 2

Adjust the value of R_2 should solve the Crossover Distortion issue.

3 Problem 3

When D_1 , D_2 or R_2 is open-circuited

$$P_{T1} = P_{T2} = \beta I_B V_{CE} = \beta \cdot \frac{V_{CC} - 2|V_{BE}|}{R_1 + R_3} \cdot \frac{V_{CC}}{2} = 1156 \text{ mW} > P_{CM}$$

Either T_1 or T_2 will be damaged.