Homework 3 Book Exercises:

2.113 Find the f_t required for internally compensated op amps to be used in the implementation of closed-loop amplifiers with the following nominal dc gains and 3-dB bandwidths:

(a) −50 V/V; 100 kHz
(b) +50 V/V; 100 kHz
(c) +2 V/V; 5 MHz
(d) −2 V/V; 5 MHz
(e) −1000 V/V; 10 kHz
(f) +1 V/V; 1 MHz
(g) −1 V/V; 1 MHz

2.123 An op amp having a slew rate of 10 V/μs is to be used in the unity-gain follower configuration, with input pulses that rise from 0 to 2 V. What is the shortest pulse that can be used while ensuring full-amplitude output? For such a pulse, describe the output resulting.

2.126 For an amplifier having a slew rate of 40 V/μs, what is the highest frequency at which a 20-V peak-to-peak sine wave can be produced at the output?