

NOTES:

- C_{PD} = DEVICE CAPACITANCE.
- R_{PD} = DEVICE PARALLEL RESISTANCE.
- e_{RF} = RESISTOR-VOLTAGE NOISE.
- e_A = AMPLIFIER-VOLTAGE NOISE.
- C_F = FEEDBACK CAPACITOR.
- R_F = FEEDBACK RESISTOR.
- C_{RF} = FEEDBACK-RESISTOR PARASITIC CAPACITANCE.
- C_{CM} = COMMON-MODE-AMPLIFIER CAPACITANCE.
- C_{DIFF} = DIFFERENTIAL-AMPLIFIER CAPACITANCE.
- $A_{OL}(j\omega)$ = AMPLIFIER OPEN-LOOP GAIN.

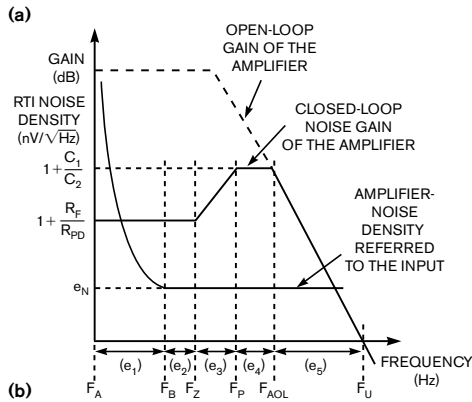


Figure 1 A typical transimpedance photo-sensing circuit (a) has five regions of overall noise response (b).