$$s_{err}$$

$$s_{in}$$

$$s_{out}$$

G f

$$G \cdot s_{err}$$

$$G \cdot f \cdot (s_{in} - s_{out})$$

$$v_{in}$$

$$v_{out}$$

$$f \cdot v_{out}$$

$$f = \frac{R_1}{R_1 + R_2}$$

$$G \approx \frac{1}{f} = 1 + \frac{R_2}{R_1}$$

$$\approx -|G(j\omega_0)|s_{err}$$

$$\angle[G(j\omega)]$$

v^+ v^- v_o $\mathrm{G}_v(j\omega)\mathrm{C}_{in}$ C_{out}