

$$F(\omega) = \frac{\beta}{4\alpha^2} (\sqrt{4\alpha c\omega + b^2} - b) / |\sqrt{4\alpha c\omega + b^2} - b|$$

$\omega \geq 0$

$$\frac{\beta}{4\alpha^2} (-\sqrt{4\alpha c\omega + b^2} + b) / |-\sqrt{4\alpha c\omega + b^2} + b|$$

$\omega < 0$

$$b = \frac{k_e k_t}{R}$$

$$c = \frac{k_t}{R}$$

