

Product, H309

h₂ zpk [C] : I

h₂ zpk [C] : I [-1/4, 1/2] / 4.62, 1.18, 0.15, 0.15, 0.15, 0.15

T_{d2} = 2.197 s

T₂ = 0.1294 + 1.609 - 6.033 = 2.685 s

T_{d1} = 5.175 s

$$G(s) = \frac{K}{(T_2 s + 1)^2} e^{-T_{d2}}$$

Approximate

$$G(s) = \frac{K}{T_1 s + 1} e^{-T_{d1}}$$

T₁ = 1.245 (6.017 - 6.033) = 4.162 s

6.017 = 8.179 s

6.033 = 8.179 s

Step (g)

g₅ = zpk [C] : I [-1/3, -1/4, -1/2, -1/2] / 2 / (5 * 4 * 2 * 2)

$$G(s) = \frac{(s+1/3)(s+1/4)(s+1/2)(s+1/2)}{2}$$