

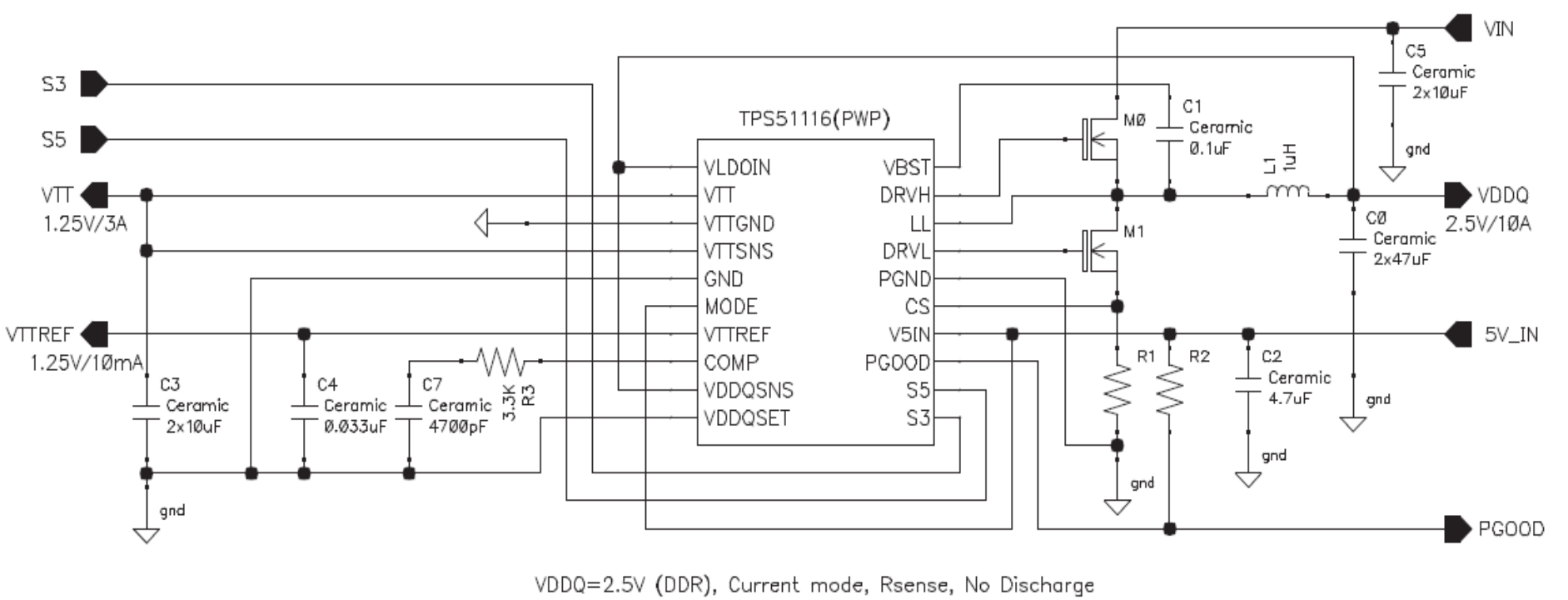


Figure 6. Current Mode, PWP Package

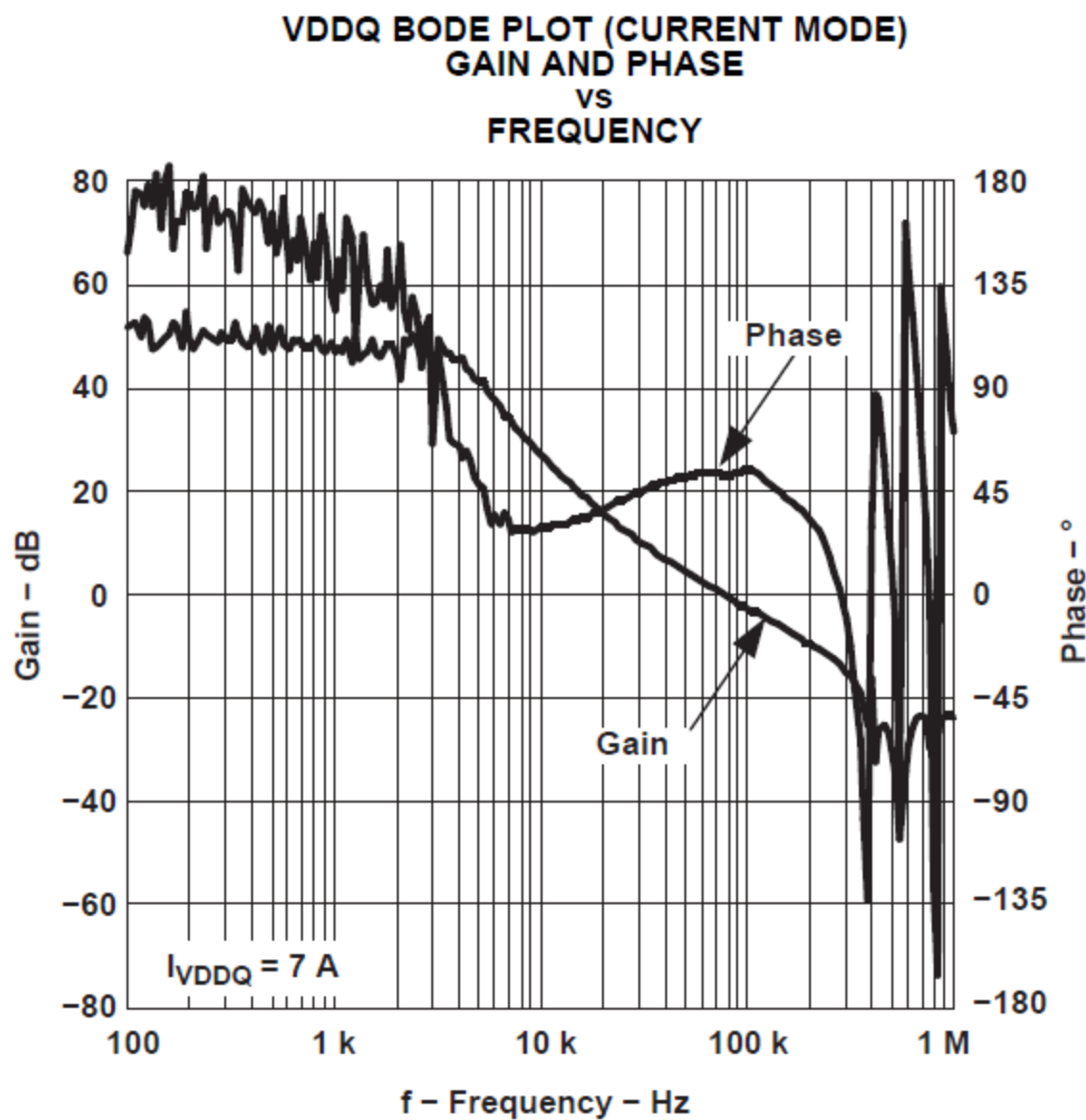


Figure 34.

Total open loop transfer function of the whole system is given by [Equation 6](#).

$$H(s) = H_1(s) \times H_2(s) \times H_3(s) \quad (6)$$

Assuming  $RL \gg ESR$ ,  $R_O \gg R_C$  and  $C_C \gg C_{C2}$ , each transfer function of the three blocks is shown starting with [Equation 7](#).

$$H_1(s) = \frac{R_2}{(R_2 + R_1)} \quad (7)$$

$$H_2(s) = -gm \times \frac{R_O (1 + s \times C_C \times R_C)}{(1 + s \times C_C \times R_O)(1 + s \times C_{C2} \times R_C)} \quad (8)$$

$$H_3(s) = \frac{(1 + s \times C_O \times ESR)}{(1 + s \times C_O \times RL)} \times \frac{RL}{R_S} \quad (9)$$

Calculated by inputting the transfer function of the data sheet Equation 6.  
Vin=12V、Vout=2.5V、Iout=7A、fsw=400kHz  
L=1 μH、Cout=94 μF、ESR=2mΩ、R3=3.3kΩ、C7=4700pF

