$V_{DC,input}$

$\frac{I_Q}{2}$

v_{D1}

v_{D2}

$+$

V_{GS1}

$-$

$+$

V_{GS2}

$-$

Δi

I_{D1}

I_{D2}

$+V_O-$

V_{OS}

$+0V$

I_Q

i_D

i_{D1}

i_{D2}

v_{id}

V_{od}

$\sqrt{2}V_{od}$

$V_{od} = 0.1\text{V}$

$V_{od} = 0.2\text{V}$

$V_{od} = 0.3\text{V}$

$V_{od} = 0.4\text{V}$

$\frac{i_{D1}}{I_Q}$

$\frac{i_{D2}}{I_Q}$

$V_{CM} + \frac{v_{dm}}{2}$

$V_{CM} - \frac{v_{dm}}{2}$

$I_Q/2$

$+$
v^+
$-$

$+$
v^-
$-$

i_d

R_S

R_D

v_o

$1 \times v^+$

$1/g_m$

i_d

$i = 0\text{A}$

V_{cm}

v_{o1}

v_{o2}

I

i

$V_D + v_{o1}$

$V_D + v_{o2}$

$2 \cdot i$

$2i$

i_{D1}

i_{D2}

v_{GS1}

v_{GS2}

$+$
x
$-$

$+$
$\frac{v_d}{2}$
$-$

v_c

C_{Large}

v_s I_{DS} v_o V_{DD} R_D R_S

C_{gs}

C_{gd}

C_{db}

C_{sb}

v_{in}

v_{out}

Z_F

Z_{in}

$r_{oc}||R_L$

ω_{LF}

ω_{HF}

$|G(\omega_{\text{pass-band}}|$

ω

$|G(j\omega)|$

$+$
$v_{gs} = 0\text{V}$
$-$

$+$
v_x
$-$