

the operating point at $v_{bb} = 1\text{volt}$ $i_c = 0.0025\text{ampere}$ $v_{ce} = 7\text{ volt}$

the operating point at $v_{bb} = 12\text{volt}$ $i_c = 0.00595\text{ampere}$ $v_{ce} = -176.3333333\text{ volt}$

beta at saturation $= 6.318584071$