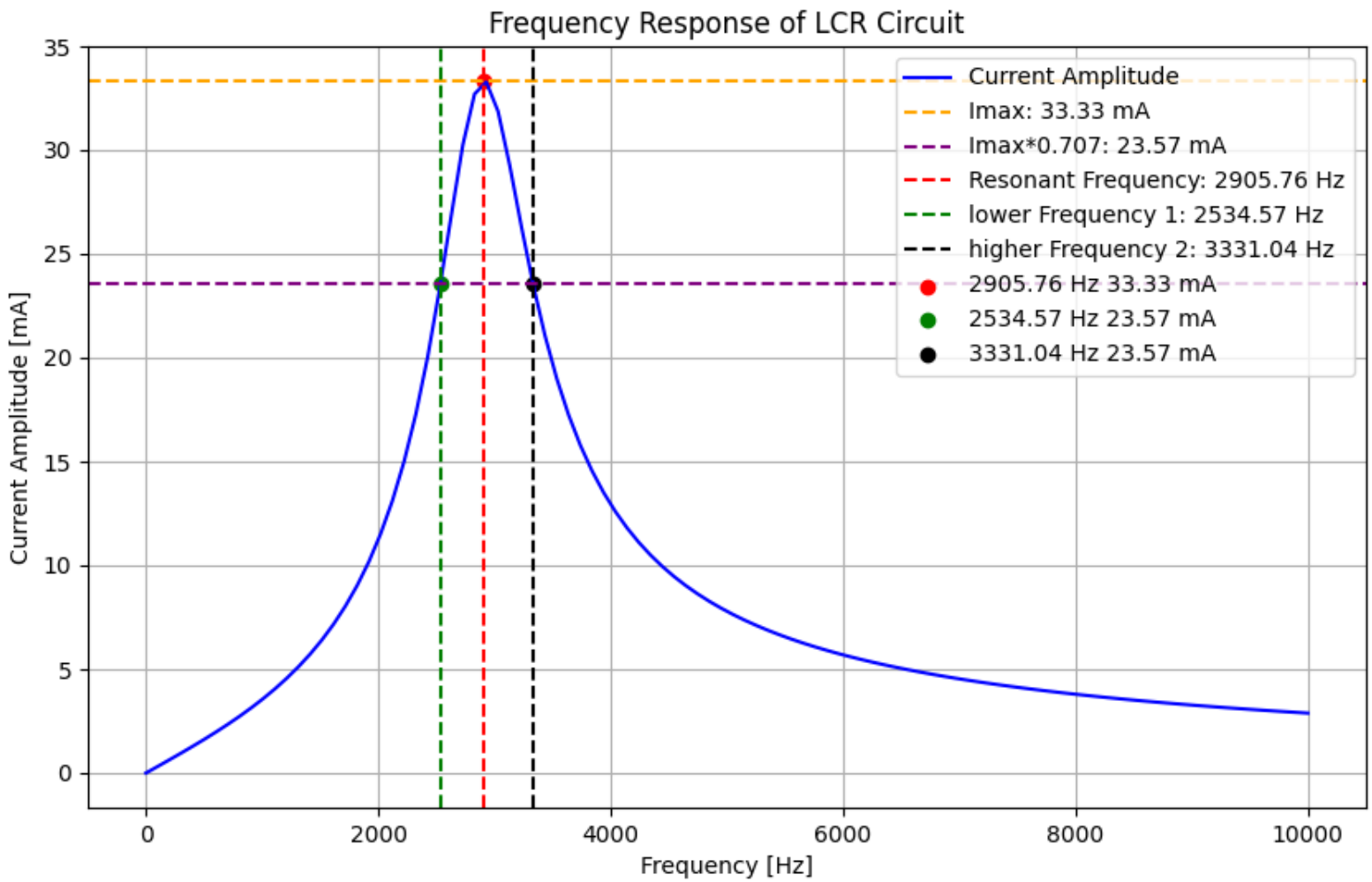


electrical damping for an LCR circuit

frequency hz	Current (mA)
0.0	0.0
101.01010101010101	0.31770208861752175
202.02020202020202	0.6376311077299671
303.03030303030303	0.9620642016807265
404.04040404040404	1.293381227471431
505.05050505050505	1.634121993041923
606.06060606060606	1.987051046497588
707.07070707070707	2.3552334102465413
808.08080808080808	2.7421255253337637
909.09090909090909	3.151686928220488
1010.101010101010102	3.5885199674370782
1111.11111111111111	4.058047386401749
1212.12121212121212	4.566741141153252
1313.131313131313132	5.122420783981051
1414.14141414141414	5.734646634890799
1515.151515151515152	6.415242347960629
1616.161616161616162	7.1789937294242225
1717.17171717171717	8.044585148953646
1818.181818181818182	9.035847656610546
1919.191919191919192	10.18339032361771
2020.202020202020203	11.526627800954365
2121.21212121212121	13.115989564163305
2222.22222222222222	15.014397197347002
2323.232323232323233	17.29515681984811
2424.24242424242424	20.02849576623218
2525.25252525252525	23.23834872491588
2626.262626262626263	26.796932813153006
2727.272727272727275	30.245445722051684
2828.28282828282828	32.70236864418434
2929.2929292929293	33.27564153657244
3030.303030303030305	31.86922674738017
3131.31313131313131	29.25076350511408

3232.3232323232323	26.292505625839542
3333.3333333333335	23.503248622772972
3434.343434343434	21.06636607564231
3535.3535353535353	19.00029486486441
3636.3636363636365	17.263341010143286
3737.373737373737	15.800692864627736
3838.3838383838383	14.561394986017595
3939.3939393939395	13.502874901725832
4040.4040404040406	12.59099414661815
4141.4141414141411	11.798781714135096
4242.424242424242	11.104988949620594
4343.434343434344	10.492822878450479
4444.444444444444	9.948930726836393
4545.454545454545	9.462615167821259
4646.464646464647	9.025236738704628
4747.474747474747	8.629760627177193
4848.484848484848	8.270412414747744
4949.49494949495	7.942415380369331
5050.50505050505	7.641788788481853
5151.515151515152	7.36519190449822
5252.525252525253	7.109802469767577
5353.535353535353	6.873221306954074
5454.545454545455	6.6533968766441305
5555.555555555556	6.448565176739267
5656.565656565656	6.257201526318927
5757.575757575758	6.077981621355889
5858.585858585859	5.909749874892764
5959.595959595959	5.751493519353317
6060.606060606061	5.602321296845536
6161.616161616162	5.4614458257297525
6262.626262626262	5.3281689308268465
6363.636363636364	5.201869376707852
6464.646464646465	5.081992560405887
6565.656565656565	4.96804181032794
6666.666666666667	4.859571008540597

6767.676767676768	4.756178308728395
6868.686868686868	4.657500765538713
6969.69696969697	4.563209725410795
7070.707070707071	4.473006856363627
7171.717171717171	4.3866207161284
7272.727272727273	4.303803775635026
7373.737373737374	4.224329829105184
7474.747474747474	4.147991733568383
7575.757575757576	4.074599430048218
7676.767676767677	4.003978206389415
7777.777777777777	3.9359671680479655
7878.787878787879	3.870417888410555
7979.79797979798	3.807193214555589
8080.808080808081	3.7461662079832654
8181.818181818182	3.6872192028600312
8282.828282828283	3.6302429668504774
8383.838383838383	3.575135951734304
8484.848484848484	3.5218036227968352
8585.858585858587	3.470157857496339
8686.868686868687	3.4201164051960755
8787.878787878788	3.3716024008418035
8888.888888888889	3.324543926397744
8989.89898989899	3.278873614651244
9090.90909090909	3.234528290680163
9191.919191919193	3.1914486468648144
9292.929292929293	3.149578947832868
9393.939393939394	3.108866762163256
9494.949494949495	3.069262718054047
9595.959595959595	3.0307202804880538
9696.969696969696	2.993195547715939
9797.979797979799	2.956647065125771
9898.9898989899	2.9210356547856517
10000.0	2.8863242591364475



$L = 0.03 \text{ H}$, $R = 150.0 \text{ ohm}$, $C = 1\text{e-}07 \text{ F}$, $V = 5.0 \text{ V}$,
 $I_{\text{max}} = 33.333 \text{ mA}$
 $I_{\text{max}} * 0.707 = 23.567 \text{ mA}$
 Resonant frequency = 2905.758 Hz
 Resonant frequency = 2905.758 Hz
 Band width= $f_h - f_l = 3331.037 - 2534.572 \text{ hz}$
 Band width = 796.465 Hz
 Quality factor = $f_r / \text{band width} = 2905.758 / 796.465$
 Quality factor = 3.648