

Equation

Eqn1
C1=1e-6
C2=0.5e-6
C3=0.2e-6

transient
simulation

TR1
Type=lin
Start=0
Stop=20 ms

Spice code of the charge-defined EDD

```
BD1I0 0 out I=0
GD1Q0 0 out nD1Q0 out 1.0
LD1Q0 nD1Q0 out 1.0
BD1Q0 nD1Q0 out I=-(C1*(V(0)-V(out))+
+ (C2*(V(0)-V(out))**2)/2+
+ (C3*(V(0)-V(out))**3)/3)
```

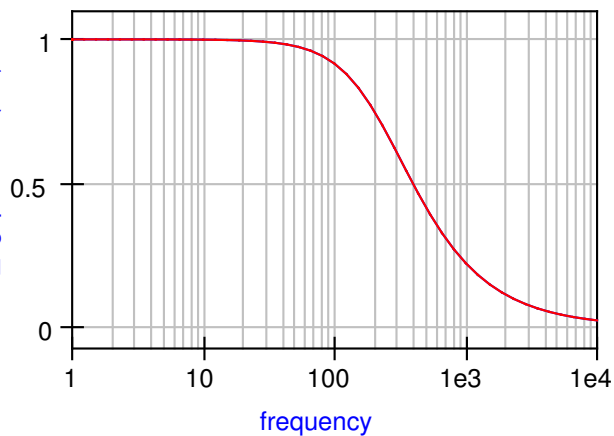
dc simulation

DC1

ac simulation

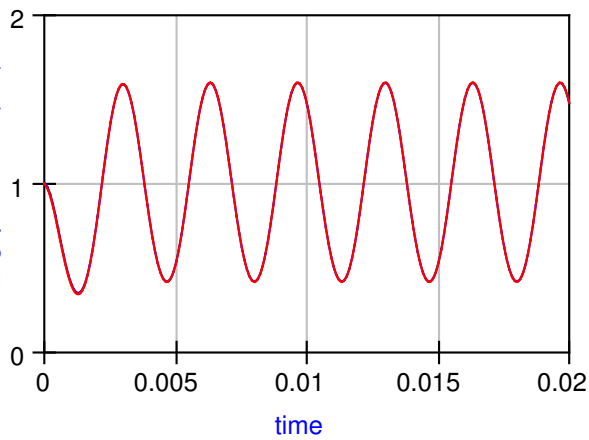
AC1
Type=log
Start=1 Hz
Stop=10 kHz
Points=41

EDD-Q-test_xyce:ac.V(OUT)
EDD-Q-test_ngspice:ac.v(out)



FREQUENCY

EDD-Q-test_xyce:tran.V(OUT)
EDD-Q-test_ngspice:tran.v(out)



TIME