

```

.ac dec 1000 1e1 1e3
.param Re=3.5 Le=1.18e-3 Bl=8.7 Mms=38.64e-3 Cms=0.3e-3 Rms=2.57 Sd=127e-4 Pref=2e-5 pi=3.14159265 rho=1.18 c=343
.tran 1 startup
.param Vbb=0.050 Cabb={Vbb/(rho*c*c)}
.param Lpb=530e-3 apb=30e-3 Spb={pi*apb*apb} Mapb={rho/Spb * (Lpb + 1.5 * sqrt(Spb/pi))}
.op
.param Lpf=297e-3 apf=30e-3 Spf={pi*apf*apf} Mapf={rho/Spf * (Lpf + 1.5 * sqrt(Spf/pi))}
.param Ug=1
.param Rae={({Bl*Bl)/(Re*Sd*Sd)} Mas={Mms/(Sd*Sd)} Ras={Rms/(Sd*Sd)} Cas={Cms*Sd*Sd}
.param Vbf2=0.0065 Cabf2={Vbf2/(rho*c*c)}

```

