

```
commandwindow
clear
clc
close all
syms t
v(t)=110*cos(120*pi*t)
c=100*10^-6
q=c*v
t=0:0.01:0.35
m=subs(q,t)
n=subs(v,t)
i=diff(q)
b=subs(i,t)
p=i*v
k=subs(p,t)
l=double(k)
plot(t,n,'blue')
hold on
plot(t,m,'red')
hold on
plot(t,l,'black')
grid on
grid minor
xlabel('Time(sec)')
ylabel('variable')
legend('voltage(volts)', 'current(ampere)', 'power(watts)')
```