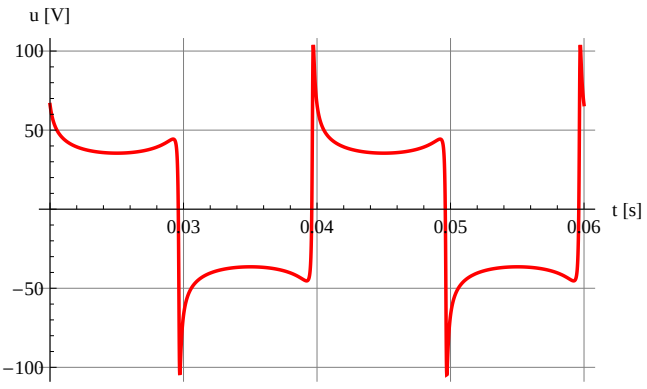
```
pom = pom;
Remove["Global`*"];
SetDirectory[NotebookDirectory[]];
Off[NIntegrate::"ncvb"];
$HistoryLength = 2;

ClearAll[sol, myPl];
ω = 100. * Pi;
nT = 3;
T = 2. Pi / ω;
tmax = nT * T;
sol[{{k1_, k2_, k3_}, {n_, m_}, {Acurr_, φcurr_}}] :=
  Module[{Neqn, i, r0 = 0.2, t, r, g, u},

   i := Acurr * Sin[ω * # + φcurr] &;
   Neqn = {k1 * r[t]^n + k2 * r[t] * r'[t] == k3 / r[t]^(m+2) * i[t]^2, r[0] == r0, D[g[t] == r[t]^(m+2) / k3, t],
     D[u[t] == k3 / r[t]^(m+2) * i[t], t], g[0] == r0^(m+2) / k3, u[0] == k3 / r0^(m+2) * i[0]};
   {r, g, u} /. NDSolve[Neqn, {r, g, u}, {t, 0, tmax},
      MaxStepSize → 0.0001 T, MaxSteps → 10^5][[1]]

  ];
{r, g, u} = sol[{{3000., 1, 12.5}, {2, 1}, {70. * 10^3, 0.123456}}];


myPl[fce_, popis_] := Module[{},

   Plot[fce[t], {t, tmax - 2 T, tmax}, AxesLabel → {"t [s]", popis},
    GridLines → Automatic, PlotStyle → {Red, Thickness[0.0063]}]
  ];
pl1 = myPl[u, "u [V]"]
```




```
phas := 2/T NIntegrate[u[t] * (Cos[ω * # * t] + I * Sin[ω * # * t]), {t, tmax - T, tmax}] &;
```

```
Flatten[{"A[" <> ToString[#] <> "] =  " <>
      ToString[0.01 Round[100 Abs[phas[#]]] // Chop] <> " V"} & /@ Range[10]] // Column
```

```
A[1] =  49.27 V
A[2] =  0 V
A[3] =  21.4 V
A[4] =  0 V
A[5] =  14.38 V
A[6] =  0 V
A[7] =  11.04 V
A[8] =  0 V
A[9] =  9.02 V
A[10] =  0 V
```