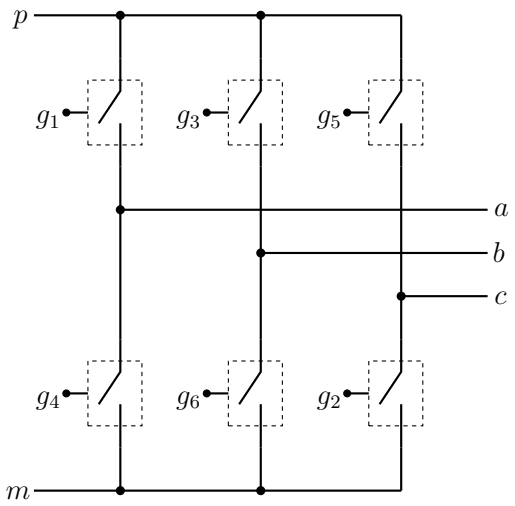
csi3_2.gme



Attributes

```
mainnodes_anlg: a b c p m
aux_var: g1 g2 g3 g4 g5 g6
iparms:
+  flag_frequency=1
+  flag_period=0
rparms:
+  r_on=1m
+  r_off=100k
+  g_high=1.0
+  t_period=20m
+  frequency=50
+  tw_deg=10
+  alpha=0
+  dt=0.1u
+  cap=0.2n
outvar_anlg:
+  g1=var_of_g1
+  g2=var_of_g2
+  g3=var_of_g3
+  g4=var_of_g4
+  g5=var_of_g5
+  g6=var_of_g6
+  is1=i1_of_s1
+  is2=i1_of_s2
+  is3=i1_of_s3
+  is4=i1_of_s4
+  is5=i1_of_s5
```

```
+  is6=i1_of_s6
```

Description

`csi3_2.gme` is a current source inverter as shown in the figure. $R_{\text{on}}/R_{\text{off}}$-type switches are used in the model. The gate signals, `g1` to `g6`, are internally generated. The switch resistance is `r_on` if the corresponding gate input is greater than `g_high`/2; else, it is `r_off`.
The other parameters have the following meaning:

`flag_frequency`: If this parameter is set to `1`, the period of the gate signals is computed using the real parameter `frequency`.

`flag_period`: If this parameter is set to `1`, the period of the gate signals is given by the real parameter `t_period`.

`tw_deg`: Pulse width in degrees (with T corresponding to 360°).

`alpha`: Offset of `g1` (with respect to $t = 0$) in degrees, where one period corresponds to 360°. (`g2` lags `g1` by 60°, and so on.)

`dt`: Rise and fall times of the gate pulses. `dt` should be generally set to 1/10 of the pulse width or smaller.

`cap`: Capacitance added between `a` and `p`, between `b` and `p`, and between `c` and `p`. It may help convergence of the Newton-Raphson process in some cases.

AC behaviour is not implemented.