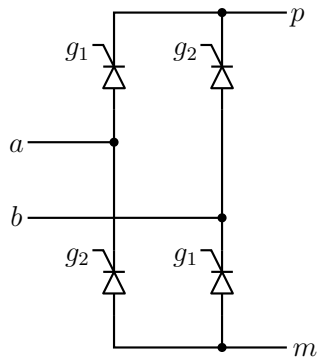


## thyristor\_bridge\_1ph\_3.gme



### Attributes

```
mainnodes_anlg: a b p m
main_var: g1
iparms:
+ flag_frequency=1
+ flag_period=0
rparms:
+ r_on=1m
+ r_off=100k
+ g_high=1.0
+ t_period=20m
+ frequency=50
+ cap=0.2n
outvar_anlg:
+ g1=var_of_g1
+ g2=var_of_g2
+ i_T1=i1_of_t1
+ i_T2=i1_of_t2
+ i_T3=i1_of_t3
+ i_T4=i1_of_t4
```

### Description

thyristor\_bridge\_1ph\_3.gme is a single-phase thyristor bridge as shown in the figure.

$R_{on}/R_{off}$ -type thyristors are used in the model. The gate signal **g1** is externally supplied, and **g2** is internally generated such that **g2** lags **g1** by  $180^\circ$ . If a gate input is greater than  $g\_high/2$ , it is considered to be high.

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**.

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

AC behaviour is not implemented.