

# thyristor.ebe

## Attributes

```
ebe name=thyristor save_history=yes x_inputs=yes
Jacobian: variable
nodes: anode cathode
state_vars:
aux_vars:
aux_vars_startup:
x_vars: g_in
iparms: flag_on=0 flag1=0
sparms:
rparms:
+ r_on=1m
+ r_off=10M
+ v_on=0
+ x_high=1
+ xhb2=0
stparms: l_closed_st=0
igparms:
outparms: i v
```

## Description

thyristor.ebe is an idealised thyristor model, behaving like a resistance  $r_{on}$  (with a voltage drop  $v_{on}$ ) when conducting and a resistance  $r_{off}$  when not conducting. The thyristor is triggered when the value of the the controlling input  $g_{in}$  is greater than  $x_{high}/2$ ,

The thyristor current and voltage are made available as output variables  $i$  and  $v$ , respectively.