

s_switch_diode_1 (subcircuit)

Attributes

```
inputs: x
outputs:
e_left_nodes:
e_right_nodes:
e_top_nodes: p
e_bottom_nodes: n
b_left_nodes:
b_right_nodes:
b_top_nodes:
b_bottom_nodes:
parameters:
  c_snubber: 1p
  r_off: 10M
  r_on: 1m
  r_snubber: 0.01
  v_on_d: 0
  v_on_s: 0
  x_high: 1
```

Description

s_switch_diode_1 is a switch-diode pair, with an RC snubber connected in parallel (see figure). The parameters r_{on} and r_{off} specify the switch or diode resistance in the conducting and non-conducting states, respectively. v_{on_s} is the on-state voltage drop across the switch while v_{on_d} is the on-state voltage drop across the diode. x_{high} is the value of x which makes the switch turn on. The parameters $r_{snubber}$ and $c_{snubber}$ are the R and C values of the snubber branch.

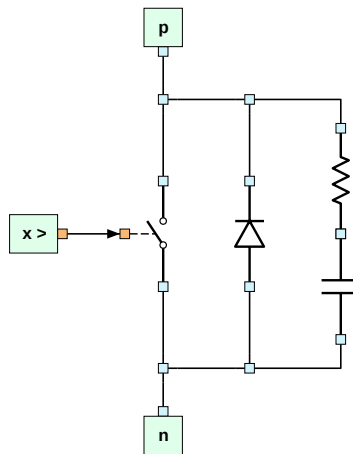


Figure 1: Schematic diagram of s_switch_diode_1.