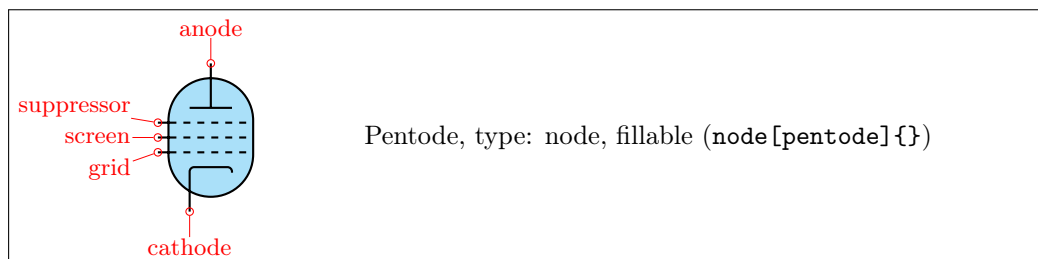
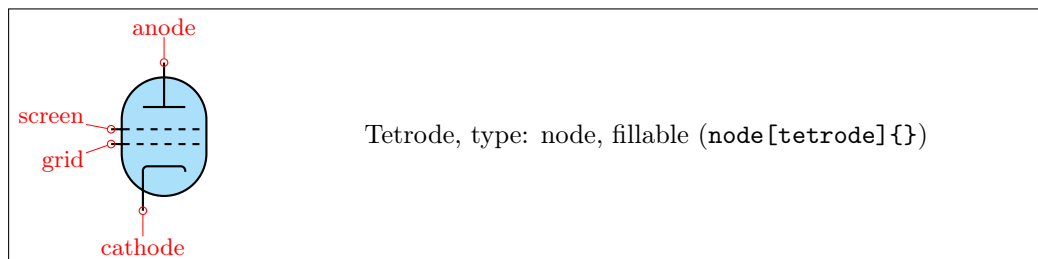
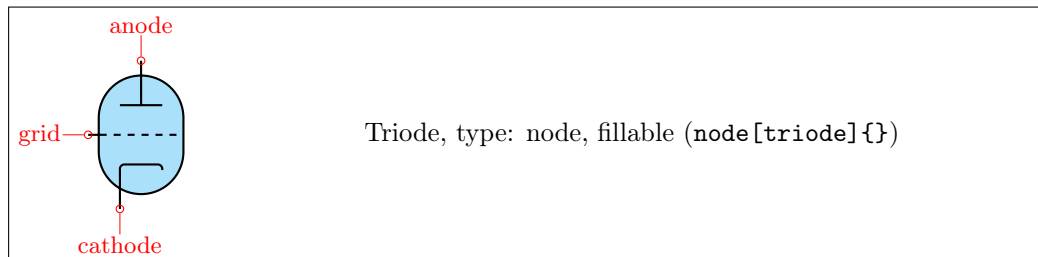
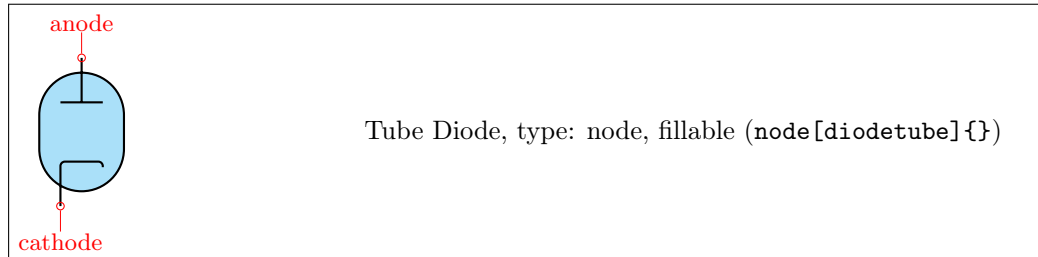
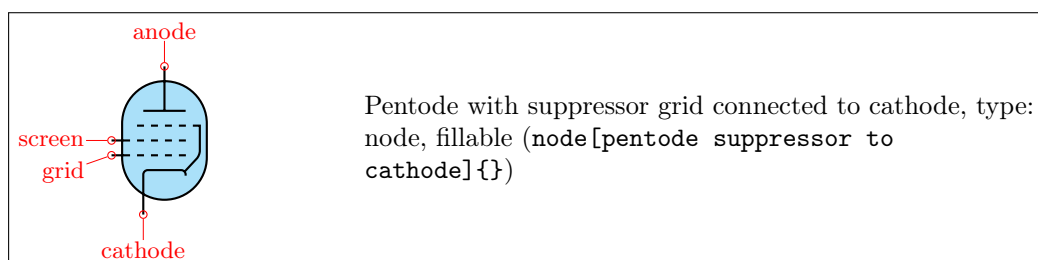


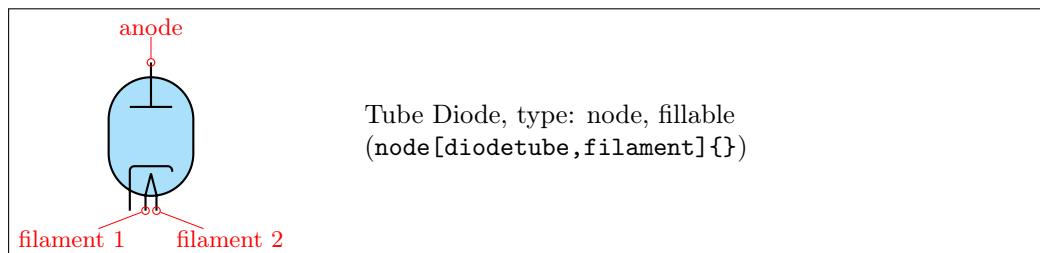
<documentation>



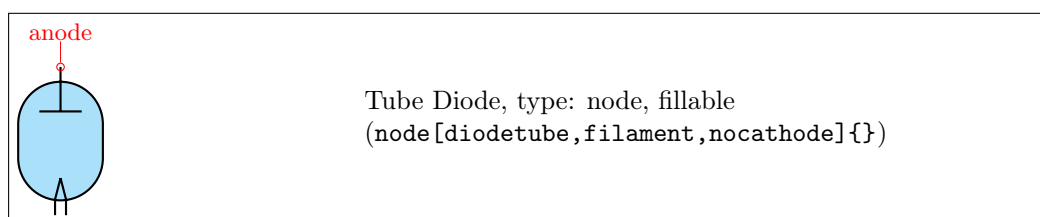
Some pentodes have the suppressor grid internally connected to the control grid, which saves a pin on the tube's housing.



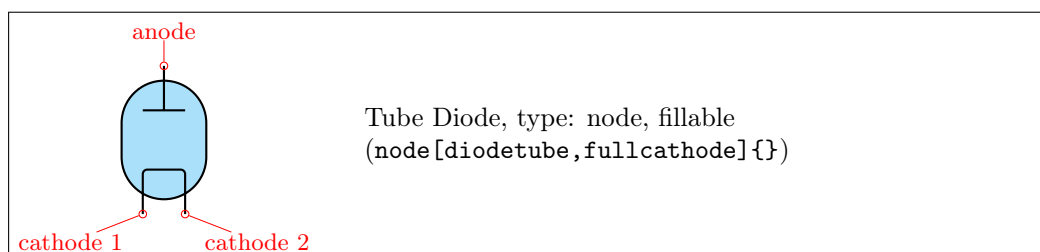
Normally, the filament is not drawn. If you want a filament, put the `filament` option in the node description:



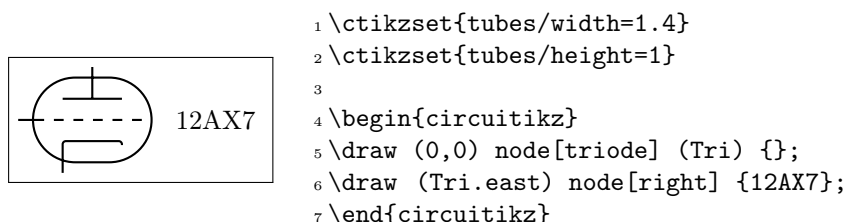
Sometimes, you don't want the cathode to be drawn (but you do want the filament). Use the `nocathode` option in the node description:



If you want a full cathode to be drawn, use the `fullcathode` option in the node description. You can then use the anchors `cathode 1` and `cathode 2`.



If you want a wide tube, you can set the width and the height of the tube. You can set the tube's model with the `east` anchor:

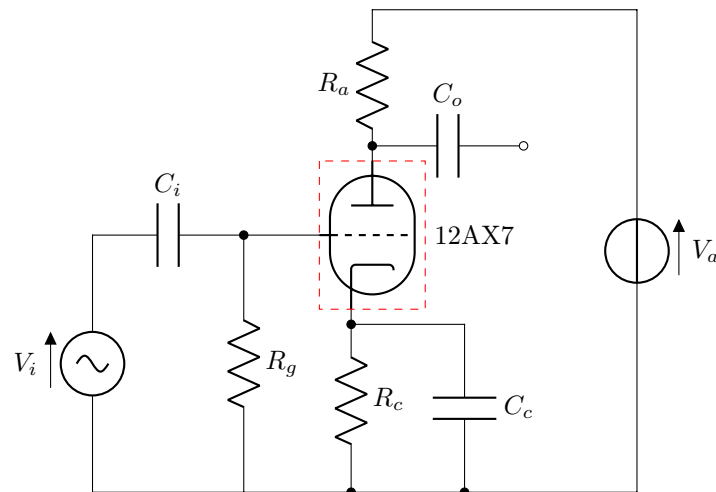


Example triode amplifier:

```

1 \begin{circuitikz}
2 \draw (0,0) node (start) {}
3         to[sV=$V_i$] ++(0,2+\ctikzvalof{tubes/height})
4         to[C=$C_i$] ++(2,0) node (Rg) {}
5         to[R=$R_g$] (Rg |- start)
6 (Rg)      to[short,*-] ++(1,0)
7         node[triode,anchor=grid] (Tri) {} ++(2,0)
8 (Tri.cathode) to[R=$R_c$, -*] (Tri.cathode |- start)
9 (Tri.anode)   to [R=$R_a$] ++(0,2)
10            to [short] ++(3.5,0) node(Vatop) {}
11            to [V<=$V_a$] (Vatop |- start)
12            to [short] (start)
13 (Tri.anode)   ++(0,0.2) to[C=$C_o$,*-o] ++(2,0)
14 (Tri.cathode) ++(0,-0.2) to[short,*-] ++(1.5,0) node(Cctop) {}
15            to[C=$C_c$, -*] (start -| Cctop)
16 ;
17 \draw[red,thin,dashed] (Tri.north west) rectangle (Tri.south east);
18 \draw (Tri.east) node[right] {12AX7};
19 \end{circuitikz}

```



</documentation>

Width greater than height

