



## Shashlik Flip

The shashlik Flip is a utility board. It can be used for pairing silicon transistors (Q1) with germanium transistors (Q2) in a “Sziklai” configuration. The benefits of a Sziklai Pair are as follows:

- 1) Leakage is only as high as the germanium transistor: The effective leakage = Q1’s leakage (zero for silicon) times Q2’s leakage.
- 2) The polarity of the transistor pair is the same as the polarity of Q1. In this case the silicon transistor Q1 is an NPN and the germanium (Q2) is PNP. The effective polarity of the pair is thus NPN.
- 3) High gain: the gain of a Sziklai pair is Q1 times Q2

I have made the Shashlik Flip PCB specifically for use as a 7 min fuzz mod but this can be used for any transistor boost / overdrive / fuzz circuit using NPN transistors. It is much easier to follow than trying to wire/solder the legs of the 2 transistors together manually which can get messy / unreliable and confusing.