Beagle CAD paw prints

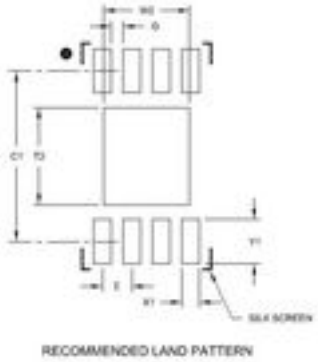
Screaming Circuits

Unfortunately, I can't generically hand out Eagle CAD QFN footprints without knowing the specific part, but I can illustrate the areas I initially had difficulty with. All of the traps that used to get me seem blindingly obvious now, but they weren't when I first tried to make my own library parts.

The very first thing I would recommend is to make your own library file. When I started in with my own parts, I would just add them to an existing library. For example, I'd put a new Microchip PIC processor into the "microchip.lbr" library. It seemed the logical choice because there are other similar parts to start with. But, when it's time to upgrade, migration of those custom parts becomes a nightmare. So, now all of my custom parts go into "dfb-parts.lbr."

[1]Speaking of modifying existing parts, another recommendation I have is, except for parts where the package footprint is EXACTLY the same, start from scratch with the package footprint.

The schematic symbol is easier to reuse - just make sure you have the right pins in the right place - but subtle differences in the copper footprint can have a big difference at the assembly stage.



[2]I also don't try to hand size and hand position the pads on the silk screen. Start by just putting a pad in the footprint area. The use the Properties/Info button (the big "i") and use the dimensions given in the data sheet to enter the size and position by number.

Look for the "recommended land pattern" or similar diagram toward the end of the component datasheet. Entering the numbers in the Properties/Info box will bypass any position precision issues. Just make sure that you use the right units (i.e. metric

to metric).

Stay tuned for the next installment.

Duane Benson
World to end at 9:30. Details at 11:00

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