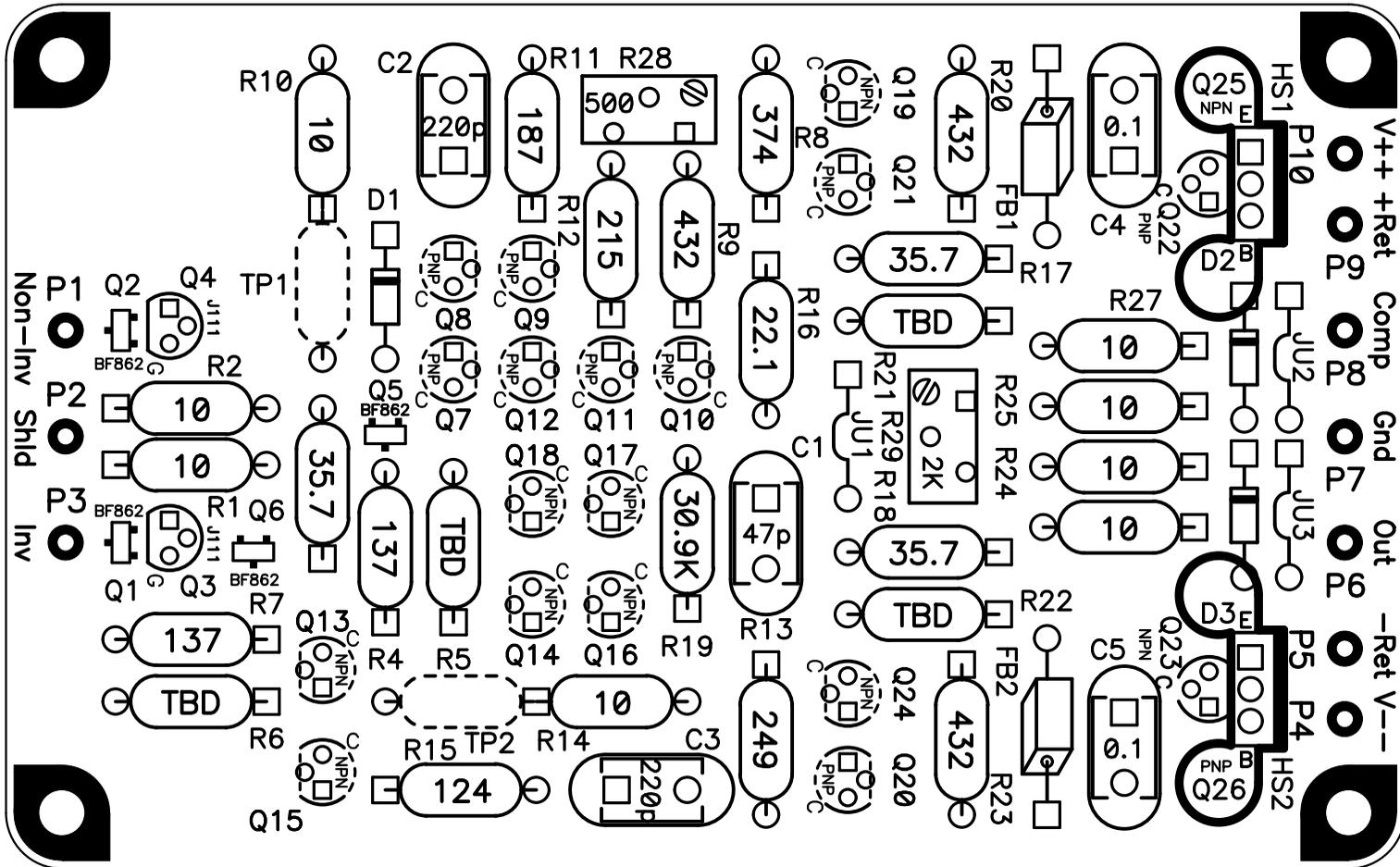


PARTS LOCATIONS FOR TRANSISTORS WITH EBC PINOUT

Component outlines shown for transistors with EBC pinout, such as 2N4401/2N4403.

Component values shown for ref only. See Parts List for correct values according to variant & Dwg Rev level.

Title SWOPA DISC OPAMP THD(1) PWB		
Size 8.5x14	Number SWOPA2885PWB1	Rev A
Date Thu Apr 25, 2013	Drawn by D. Chisholm	
File SWOPA_Post2885PWB_A.pcb	Sheet of	



PARTS LOCATIONS FOR TRANSISTORS WITH CBE PINOUT

Component outlines shown for transistors with CBE pinout, such as BC550/BC560.

Component values shown for ref only. See Parts List for correct values according to variant & Dwg Rev level.

Title SWOPA DISC OPAMP THD(1) PWB		
Size 8.5x14	Number SWOPA2885PWB1	Rev A
Date Thu Apr 25, 2013	Drawn by D. Chisholm	
File SWOPA_Post2885PWB_A.pcb	Sheet of	

A

B

C

D

E

F

1

1

2

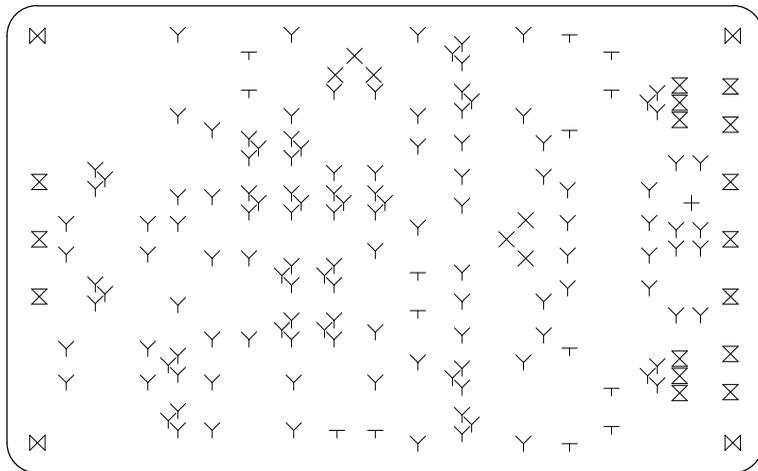
2

3

3

4

4



Drill Table			
Hole Dia (inch)	Symbol	Quantity	Plated
0.016	+	1	Yes
0.029	X	6	Yes
0.032	Y	128	Yes
0.036	T	14	Yes
0.043	⊗	16	Yes
0.125	⊗	4	Yes

Title SWOPA DISC OPAMP THD(1) PWB		
Size 8.5x14	Number SWOPA2885PWB1	Rev A
Date Thu Apr 25, 2013	Drawn by D. Chisholm	
File SWOPA_Post2885PWB_A.pcb	Sheet	of

A

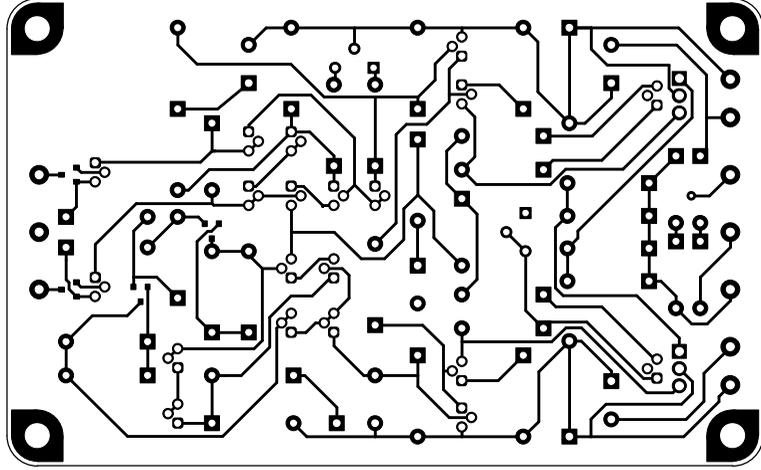
B

C

D

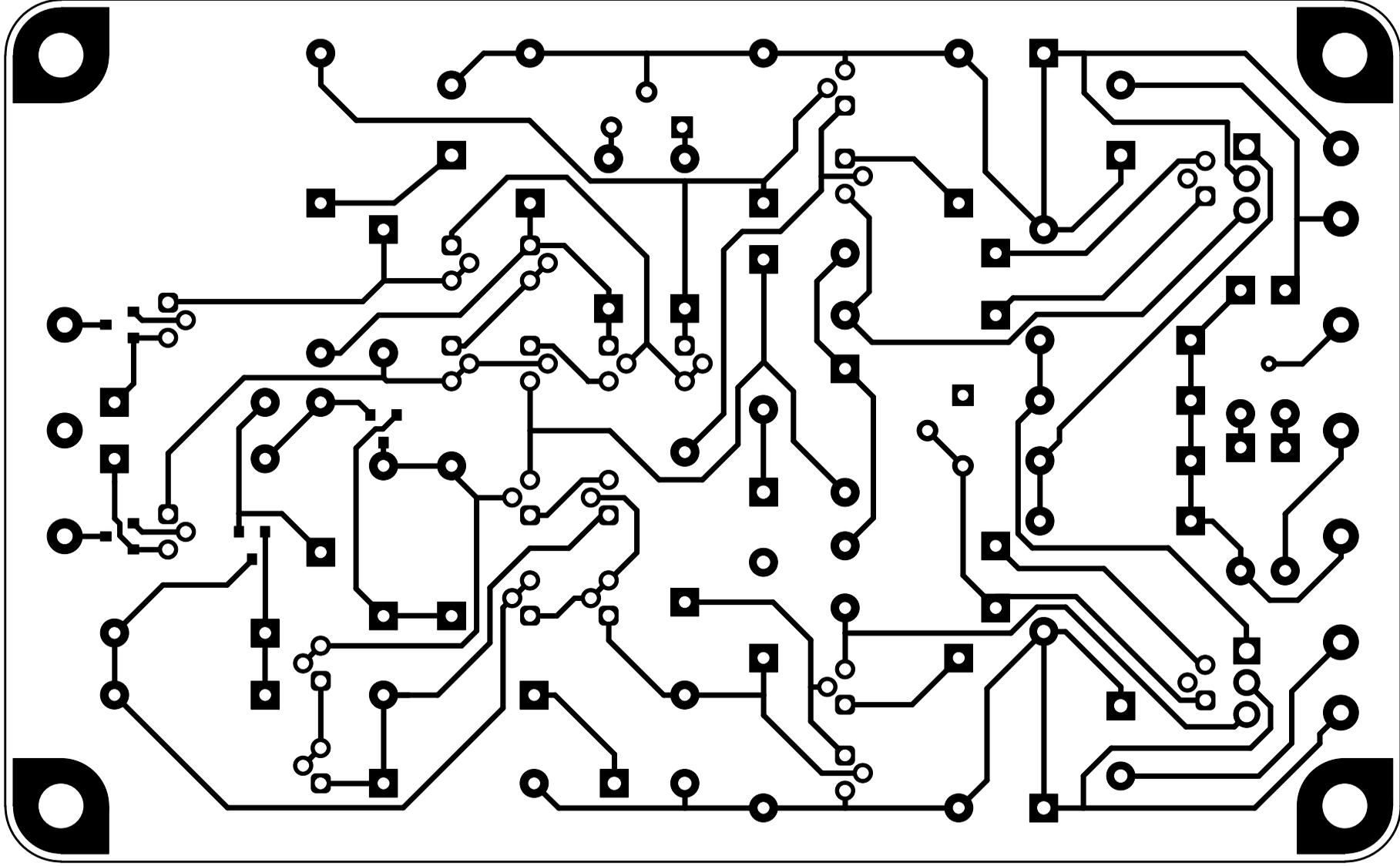
E

F

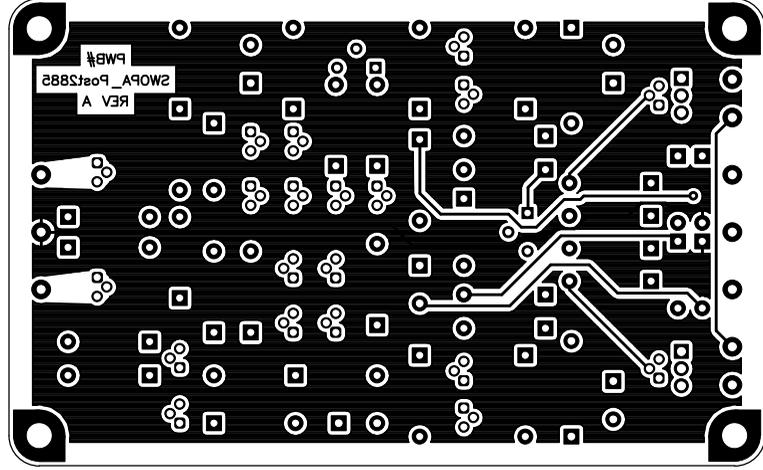


TOP CIRCUIT LAYER

Title			
SWOPA DISC OPAMP THD(1) PWB			
Size	Number	Rev	
8.5x14	SWOPA2885PWB1	A	
Date	Thu Apr 25, 2013	Drawn by D. Chisholm	
File	SWOPA_Post2885PWB_A.pcb	Sheet	of

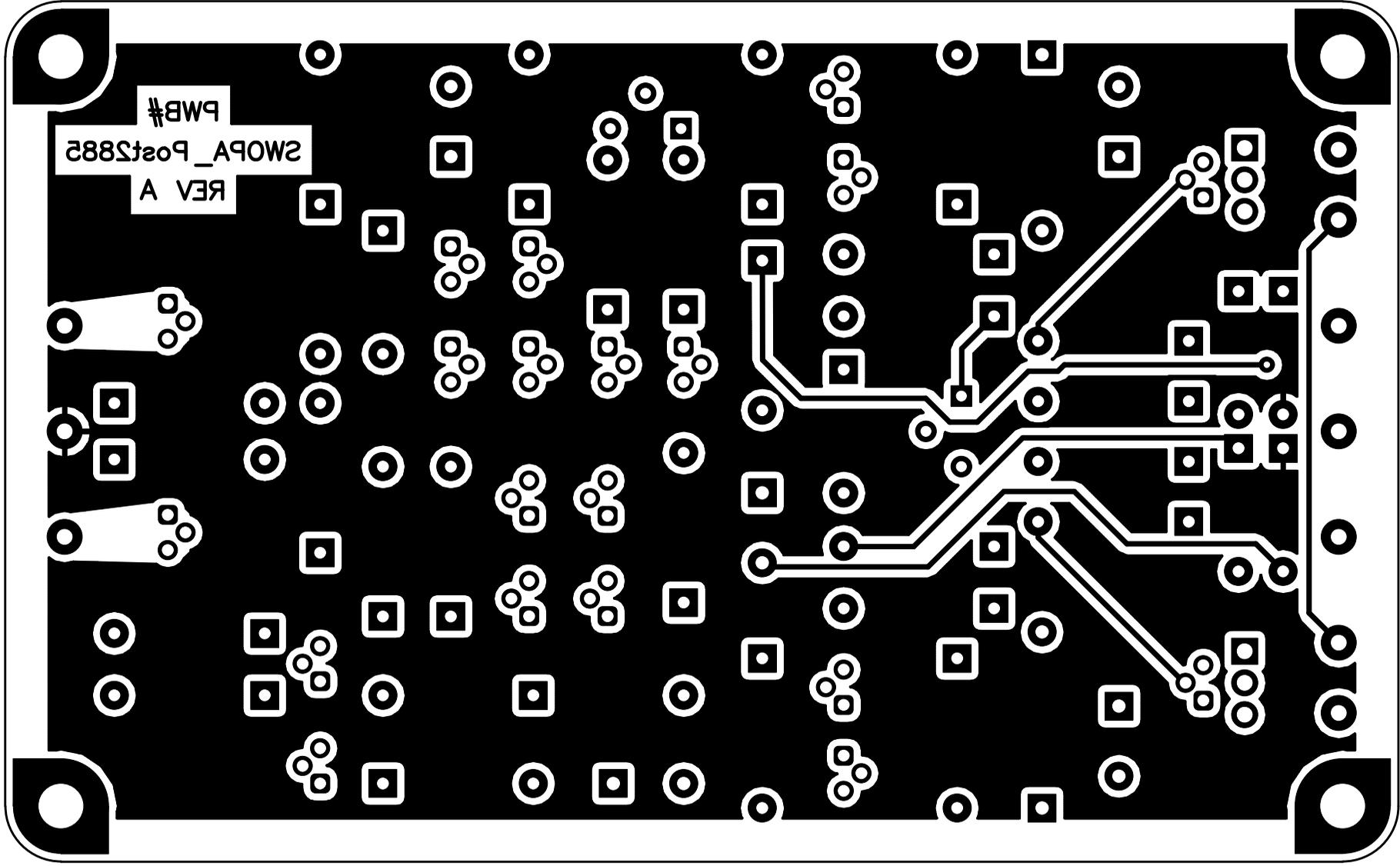


TOP CIRCUIT LAYER



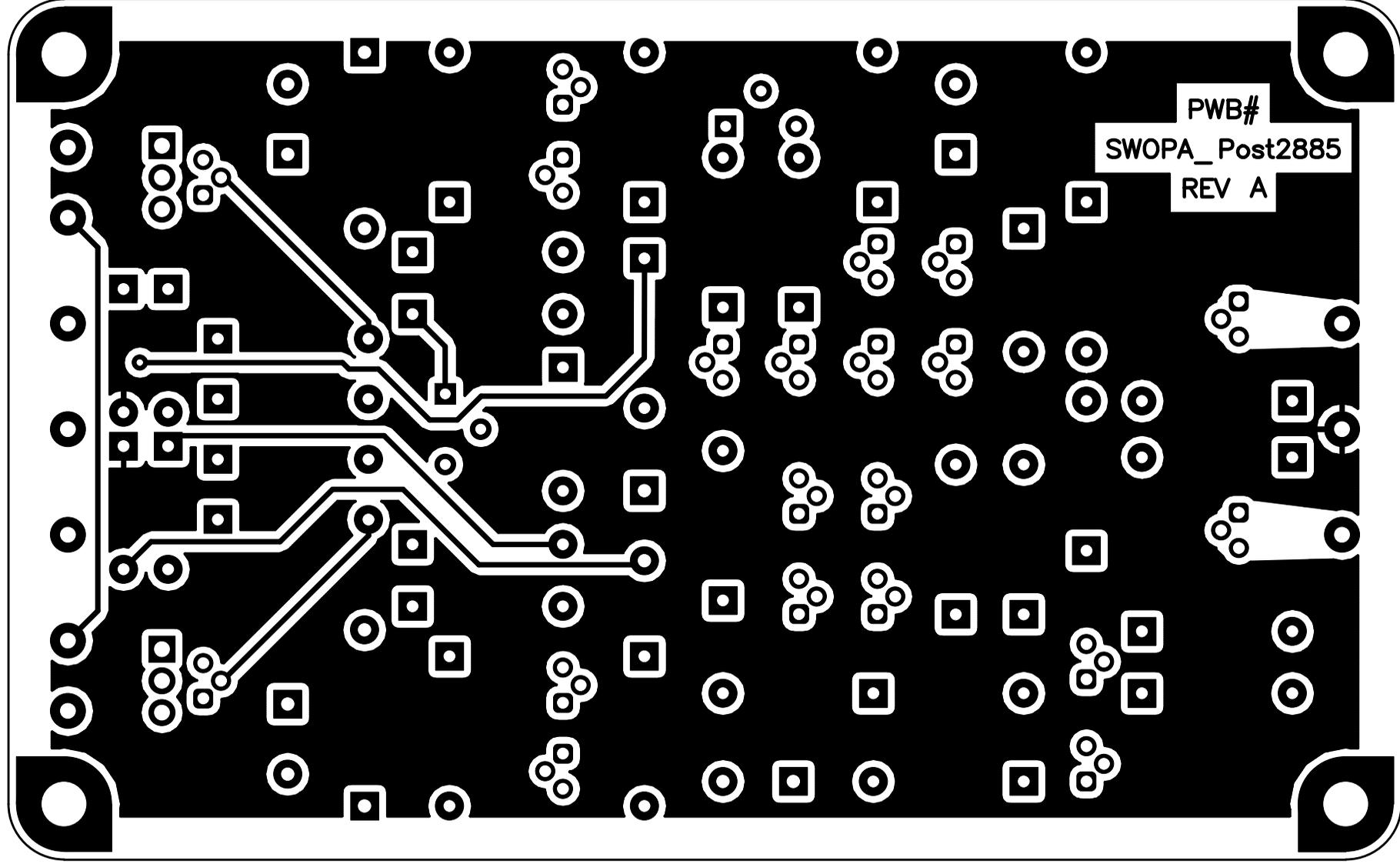
BOTTOM CIRCUIT LAYER

Title SWOPA DISC OPAMP THD(1) PWB		
Size 8.5x14	Number SWOPA2885PWB1	Rev A
Date Fri Apr 26, 2013	Drawn by D. Chisholm	
File SWOPA_Post2885PWB_A.pcb	Sheet	of



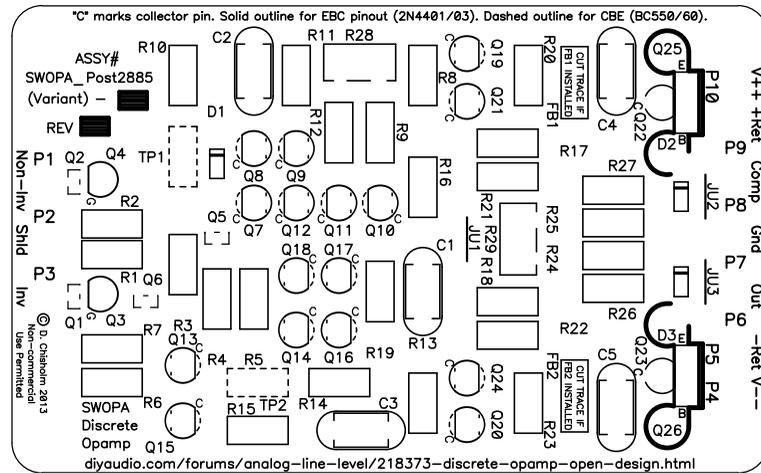
BOTTOM CIRCUIT LAYER

БОТЛОМ ЦИРКУИТ ПЛАТЕН



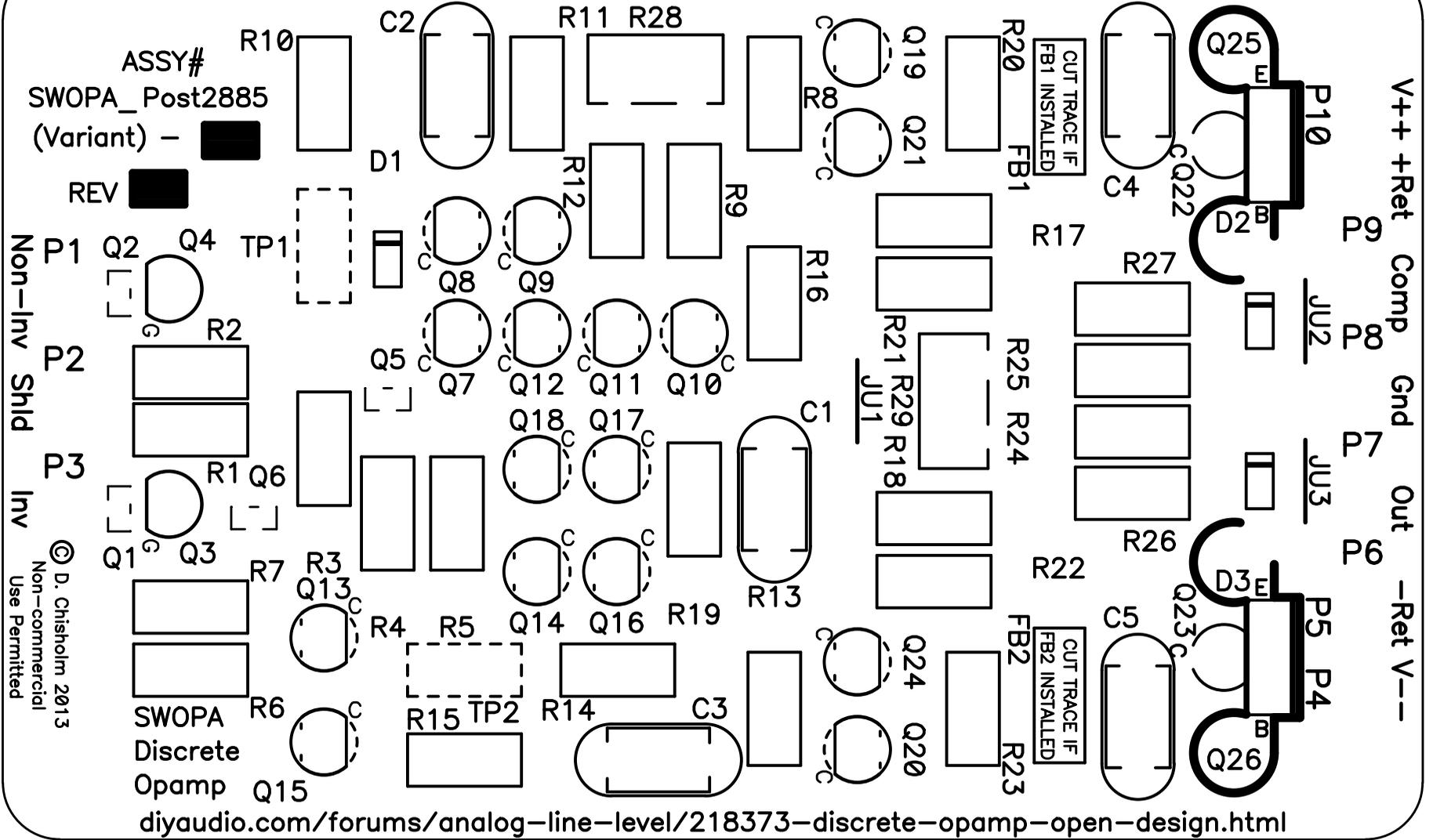
PWB#
SWOPA_Post2885
REV A

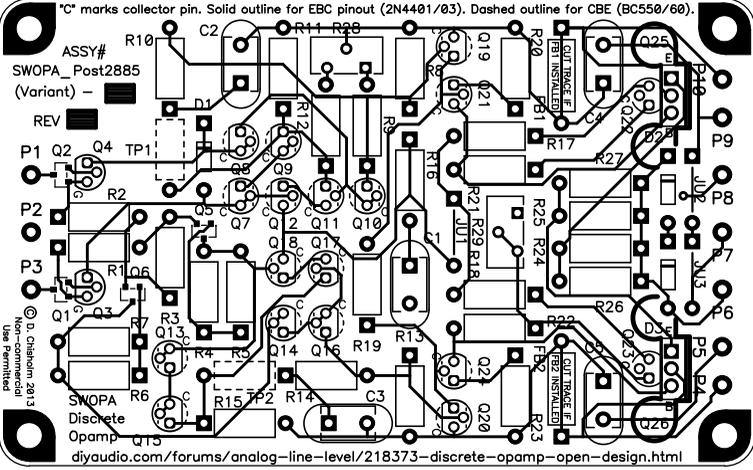
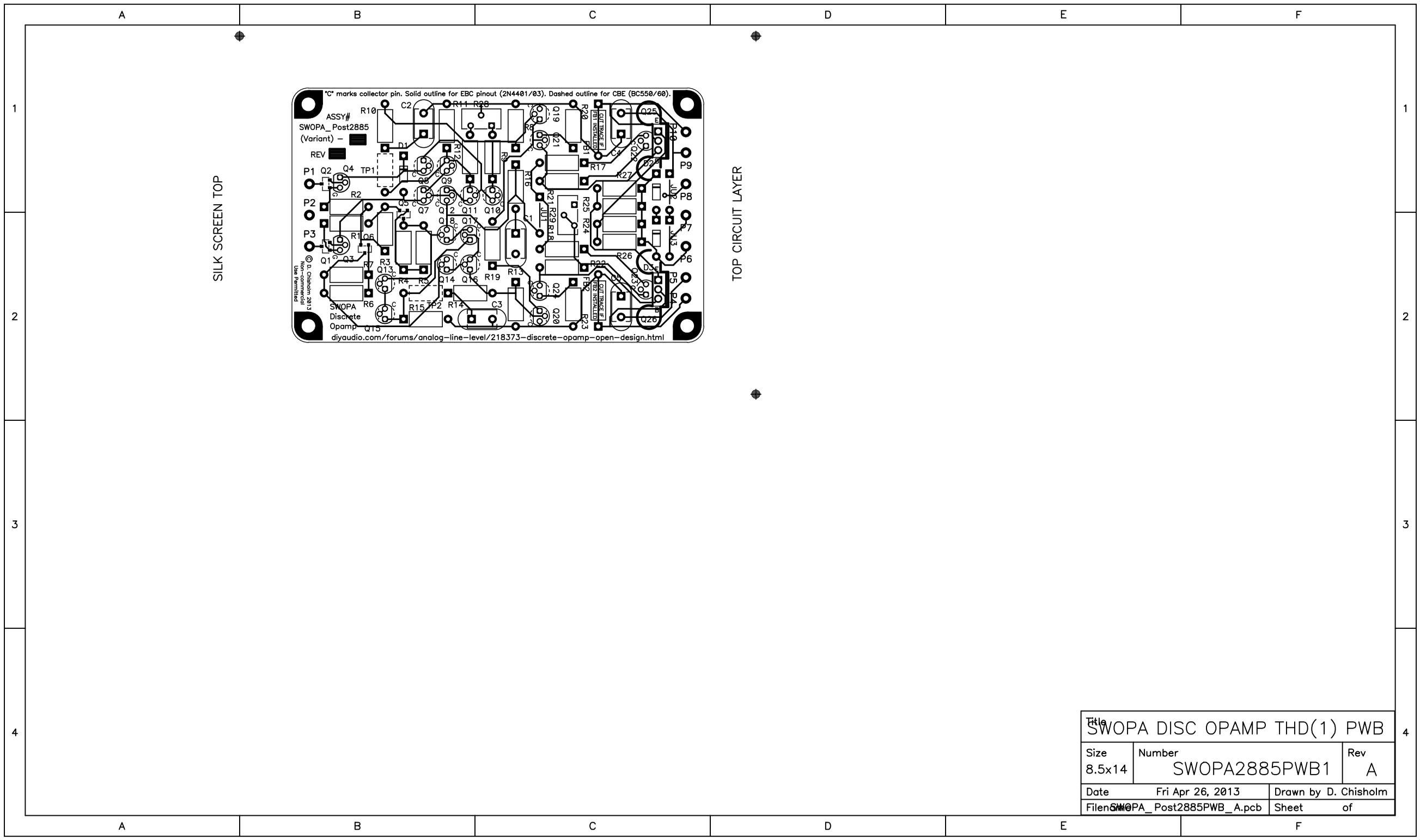
SILK SCREEN TOP



Title SWOPA DISC OPAMP THD(1) PWB		
Size 8.5x14	Number SWOPA2885PWB1	Rev A
Date Fri Apr 26, 2013	Drawn by D. Chisholm	
File SWOPA_Post2885PWB_A.pcb	Sheet of	

C marks collector pin. Solid outline for EBC pinout (2N4401/03). Dashed outline for CBE (BC550/60).





Title SWOPA DISC OPAMP THD(1) PWB		
Size 8.5x14	Number SWOPA2885PWB1	Rev A
Date Fri Apr 26, 2013	Drawn by D. Chisholm	
File SWOPA_Post2885PWB_A.pcb	Sheet	of

PWB Drawing Sheet Index

The printed wiring board (PWB) human-readable drawing (filename: SWOPA2885PWB1_ALL.pdf) includes sheets described below. Print at 1:1 scale ("Actual Size", not "Fit to Page") on 8.5" x 14.0" (US "Legal" size) paper in "Landscape" orientation.

Sheet 1: SWOPA2885PWB1_BRD Overall dimensions and overview of the PWB as used in the intended assembly. Magnified component placement view. Fabrication notes used by the PWB etching house. Mounting hole detail.

Sheet 2: EBC_PLACEMENT Magnified view of component placement on completed PCB assembly. Transistor outlines for TO-92 packages are shown for devices with "EBC" pinout, such as the 2N4401/2N4403. Component values are also shown, but not guaranteed to be accurate - consult parts list for the particular varinat and revision level being constructed. This sheet is most likely used as a guide during assembly and inspection check-print.

Sheet 3: CBE_PLACEMENT Magnified view of component placement on completed PCB assembly. Transistor outlines for TO-92 packages are shown for devices with "CBE" pinout, such as the BC550/BC560. Component values are also shown, but not guaranteed to be accurate - consult parts list for the particular varinat and revision level being constructed. This sheet is most likely used as a guide during assembly and inspection check-print.

Sheet 4: DRILL_LOCATIONS View showing all holes. Hole locations are actually defined in the Excellon drill file, included in the "Gerbers" folder. This sheet is most likely used as a check-print for sample inspections to verify that boards were manufactured correctly.

Sheet 5: TOP_COPPER Pads and traces on the top (component) side of the PWB.

Sheet 6: TOP_COPPER_ONLY Same as sheet 5, but the drawing title block and border has been removed and the top circuit layer has been magnified to fit the page (magnification factor approx 2.4:1). Of particular interest to masochists wanting to replicate this layout in a different PWB program. May also be used for home etching of PCB's (using, e.g., toner transfer) if you spend enough time finagling the printer scale factor.

Sheet 7: BOTTOM_COPPER Pads and traces on the bottom side (traditionally called the "solder side") of the PWB. Note that this is a view "looking through" the PWB from the top side, which is a de-facto standard for the PCB fabrication industry.

Sheet 8: BTM_COPPER_ONLY Same as sheet 7, but the drawing title block and border has been removed and the bottom circuit layer has been magnified to fit the page.

Sheet 9: BTM_COPPER_MIRROR A "mirror image" of sheet 8. (Note that the etched copper drawing number reads correctly from left to right.) This is the image a home constructor might use for the bottom side of his board - if he's willing to not only finagle the scale factor, but also wrestle with top/bottom registration.

Sheet 10: TOP_SILK Component outlines, reference designators, and other information printed in ink on the top side of the board. (Traditionally called the "silkscreen" or "legend" layer.) A few of the reference designators are placed in ambiguous locations - refer to the component placement diagram on sheet 2 or sheet 3.

Sheet 11: TOP_SILK_ONLY Same as sheet 10, but the drawing title block and border has been removed and the silkscreen layer has been magnified to fit the

page .

Sheet 12: TOP_SILK_COPPER Combined view of top-side traces and silk-screen may be useful for critiquing the PWB layout.