

TB-Super-O v1.0.6 BOM

Part substitution is fine, if you have lots of 1% resistors, then go for it.

The only thing to watch is the height of electrolytics, low profile ones can be used (an example Mouser part is provided)

However standard 11mm electrolytics can be used, just lay them flat against the board (where space permits) or place them at 45degrees to the board.

Voltages also not an issue, anything over 16v should be good, maybe 25v for the 47uF in the power filtering.

Standard 11mm clearance between the two boards, so just keep that in mind.

If you are sourcing your own transistors, Aliexpress has loads of modern 733,945,1815 etc, I've tested these and they work fine and have >300hfe mostly

In the Mouser column, I've either placed a part number or search terms. Due to part shortages etc, the string that will find you suitable parts to choose from what is in stock etc.

Parts numbered 400+ are on the upper board.

Value	Count	Location	Mouser	Alternatives	Notes
Resistors					
TEMPCO					
1K	6	R7A,R7B,R14A,R14B,R23A,R23B			Thonk
5% Carbon 1/4W					
1K	6	R28,R31,R37,R40,R59,R60	Search "CFR 1K 1/4w" etc		
2K2	3	R3,R17,R24			
10K	22	R4,R5,R11,R12,R20,R21,R34,R36,R46 R48,R51,R54, R401-R410			
15K	3	R30,R39,R58			
27K	3	R6,R13,R22			
47K	9	R2,R8,R10,R16,R19,R25,R29,R38,R56			
68K	3	R42,R45,R52			
100K	15	R15,R26,R27,R32,R33,R35 R41,R43,R44,R47,R49,R50,R53,R55,R57			
220K	3	R1,R9,R18			
Capacitors					
MLCC					
10n	1	C305	mlcc leaded 0.01uf		2.5mm leg spacing
100n	8	C1,C2,C3,C4,C303,C304,C401,C402	mlcc leaded 0.1uf		2.5mm leg spacing
Polybox					
1uF	6	C13,C14,C17,C18,C21,C22	polyester 1uf 63v		5mm leg spacing, no taller than 10mm
Polyester (Nichicon QYX)					
1n	3	C6,C8,C12	qyx 1nf 50v		5mm leg spacing
10n	3	C5,C7,C9	qyx 10nf 50v		5mm leg spacing
12n	3	C10,C16,C19	qyx 12nf 50v		5mm leg spacing
Electrolytic					
0.33u/25	1	C302	50NW50R33MEFC4X5		Must be low profile
1u/50	3	C11,C15,C20			Low profile, but normal 11mm will fit laying on an angle towards spaces
47u/25	2	C300,C301			Low profile, but normal 11mm will fit laying on an angle
Diodes					
1N4148	3	D3,D4,D5	512-1N4148		
1N5817	2	D1,D2	511-1N5817		
IC					
78L05	1	IC1	511-L78L05ABZ		
TL074	1	IC2	595-TL074ACN		
AN6562	3	IC3,IC4,IC5	926-LM358N/NOPB	LM358	AN6562 NOS rare part searchinv, or LM358 is fine.

TL072 2 IC6,IC7 595-TL072IP

Transistors

2SA733P	6 Q1,Q5,Q8,Q9,Q16,Q17	NOS rare part	2SA1015,2SA608**	Highest hfe, use P164C from kit
2SC945P	Q2,Q3,Q4A,A4B,Q6,Q7,Q8A,Q8B			
	12 Q10,Q11,Q12A,Q12B	NOS rare part	2SA1815,2SC536F**	*Use H945P or STC945P for the A/B parts
2SK30A-O	3 Q13,Q14,Q15	NOS rare part	2SK118-O***	

* To be clear, the kit will come with two sets of 6 945P variants. The ones marked H945P or with STC label should be used for the dual A/B positions, they have matched hfe

** Ignore most of the voodoo around transistor types, the original 303 used all NPN types listed during production, so any will be fine.

*** Creates the base SAW core shape, should be the -O variant, getting harder to find, but the 118-O is identical, just in the smaller package.

These are provided in the partial kit option.

Trimmer

100K	3 TUNE1-3	652-3362P-1-104LF	3362
5K	3 WIDTH1-3	652-3362P-1-502LF	3362

Misc

B50K	6 VR1-VR6	Thonk etc	9mm alpha	Can get a center detent for VR1,VR2,VR3 the TUNE pots if you like
B10K	6 VR7-VR12	Thonk etc	Song Heui tall trimmer	Can use normal alpha 9mm with tall trimmer caps on them - best to get D or flower shaft if doing this.
PJ301M	11 U1-U11	Thonk etc	Thonkiconn	
PWR	1 SV1		10pin euro power header or 2x5 pin header	
1x4	3 JP1,JP2,JP3		1x4 pin male header	
1x3	1 JP5		1x3 pin male header	
1x2	2 JP4,JP6		1x2 pin male header	
1x4	3 JP1,JP2,JP3		1x4 pin female header	
1x3	1 JP5		1x3 pin female header	
1x2	2 JP4,JP6		1x2 pin female header	
11mm	3 Standoff			
3mm	6 Screws for standoff			