

# Building Elvee's Circlophone – BOM – Mouser / Msander68 Revision: Final (2022-08-05)

No	Pos	Resistors	W	Qty	Mouser Part No	Notes	Size
1	R1	330R	600mW	2	603-MF0207FTE52-330R	50 PPM	6.3 x 2.4 mm
2	R2,R3	68R	600mW	4	603-MF0207FTE52-68R		6.3 x 2.4 mm
3	R4	5.6K	600mW	2	603-MF0207FTE52-5K6		6.3 x 2.4 mm
4	R5	22R	600mW	2	603-MF0207FTE52-22R		6.3 x 2.4 mm
5	R6,R7	1.2K	600mW	4	603-MF0207FTE52-1K2		6.3 x 2.4 mm
6	R8,R11,R24	1R 0.5%	1W	6	71-CPF1-D-1.0-E3	684-SR20-0.5	6.1 x 2.29 mm
7	R9,R12	56R	600mW	4	603-MF0207FTE52-56R		6.3 x 2.4 mm
8	R10,R13	15R	1W	4	71-CPF1-15R0FT1		6.1 x 2.29 mm
9	R14	27R	600mW	2	603-MF0207FTE52-27R		6.3 x 2.4 mm
10	R15	680R	600mW	2	603-MF0207FTE52-680R		6.3 x 2.4 mm
11	R16,R19	470R	600mW	4	603-MF0207FTE52-470R		6.3 x 2.4 mm
12	R17,R20	10K	600mW	4	603-MF0207FTE52-10K		6.3 x 2.4 mm
13	R18	270R	600mW	2	603-MF0207FTE52-270R		6.3 x 2.4 mm
14	R21	20K	600mW	2	603-MF0207FTE52-20K	See Sizing Chart	6.3 x 2.4 mm
		25K			603-MF0207FTE52-24K9		6.3 x 2.4 mm
		27K			603-MF0207FTE52-27K		6.3 x 2.4 mm
		30K			603-MF0207FTE52-30K		6.3 x 2.4 mm
		33K			603-MF0207FTE52-33K		6.3 x 2.4 mm
		39K			603-MF0207FTE52-39K		6.3 x 2.4 mm
		43K			603-MF0207FTE52-43K2		6.3 x 2.4 mm
		47K			603-MF0207FTE52-47K		6.3 x 2.4 mm
		51K			603-MF0207FTE52-51K		6.3 x 2.4 mm
		56K			603-MF0207FTE52-56K		6.3 x 2.4 mm
		62K			603-MF0207FTE52-62K		6.3 x 2.4 mm
		68K			603-MF0207FTE52-68K		6.3 x 2.4 mm
15	R23	33R	600mW	2	603-MF0207FTE52-33R		6.3 x 2.4 mm
16	R25	5.6R	3W	2	71-RS2B-5.6		15.8 x 4.8 mm
17	R26	2.2K	600mW	2	279-LR1F2K2		6.2 x 2.3 mm
18	R27	1M	600mW	2	603-MF0207FRE52-1M		6.3 x 2.4 mm

No	Pos	Capacitor	Voltage	Qty	Mouser Part No	Notes	Size
1	C1	220nF	63V	2	594-2222-416-42204	Polypropylene	12.5 x 6 mm Raster 10
2	C2	470pF	63V	2	80-PFR5471J63J11L4	Polypropylene	7.2 x 6 mm Raster 5
3	C3	470uF	6.3V	2	667-6SEPC470M+TS	Polymer Aluminium 5000h	D8 x 13 mm Raster 3.5
4	C4	27pF or 25pF	200V	2	80-C315C470J2G	Ceramic	3.8 x 3.2 x 2.5 Raster 2.54
5	C5	330pF	63V	2	80-PFR5331J63J11L4	Polypropylene	7.2 x 6 mm Raster 5
6	C6	1.5nF	63V	2	80-PFR5152J63J11L4	Polypropylene	7.2 x 6 mm Raster 5
7	C7	22nF	63V	2	505-FKP2-.022/63/2.5	Polypropylene	7.2 x 7.2 mm Raster 5
8	C8,C9	220uF	40V	4	140-RXJ221M1HBK1025P	Aluminum Electrolytic 5000h	D10 x 25 mm Raster 5
9	C10	4.7uF	63V	2	667-EEU-EB1J4R7SB / 598-MPX475K305N	Aluminum Electrolytic 5000h	D5 x 11 mm Raster 5
			50V	2	80-R82CC4470Z330J	Film Capacitors	7.2 x. 7.2 Raster5
10	C11	10nF	63V	2	80-PFR5103J63J12L4	Polypropylene	7.2 x 7 mm Raster 5
11	C12	470pF	63V	2	80-PFR5471J63J11L4	Polypropylene	7.2 x 6 mm Raster 5
No	Pos	BJT		Qty	Mouser Part No	Notes	Size
1	Q1,Q2,Q7	BC556B		6	637-BC556BBK		TO-92
2	Q3,Q4 Input	BC560C HFE matched		4	Nope N/A	301-29-970 ELFA	TO-92
		BC556C HFE matched			637-BC556C		TO-92
		BC556B			637-BC556BBK		TO-92
3	Q5,Q6 VAS Cob 4pF~16pF	2N3019		4	610-2N3019	532-326005B00000	TO-39
		KSC3503 < add 3.3pF			512-KSC3503DS	Cob 2.6pF	TO-126
		BF819 < 5pf Add Cap			Nope N/A		
		2SD669			Nope N/A		
		2SC5171			Nope N/A		
		2SC3421			Nope N/A		
		2SC2911			Nope N/A		
		2N3501			494-2N3501		
		2N2219 < 5pf Add Cap			494-2N2219A		
		2N1893			494-2N1893S		

4	Q8,Q10 Output	<b>2N3055</b>		4	863-2N3055G	Quality_Score: 0.35	TO-204
		2N3772 Moto			Nope N/A		
		2N6259 STC			Nope N/A		
		2SD1047			511-2SD1047	Quality Score: 1.76	
		2SD424 EIC			Nope N/A		
		2SD555 NEC			Nope N/A		
		41013 RCA			Nope N/A		
		BD183 Philips			Nope N/A		
		BD249C			Nope N/A	Quality_Score: 1.04	
		BD317 Tesla			Nope N/A		
		BDX95 Philips			Nope N/A		
		BDY58 ST			Nope N/A		
		BDY91 Philips			Nope N/A		
		EP1926 Texas			Nope N/A		
		MJ15003			863-MJ15003G	Quality_Score: 0.94	
		MJ15015			863-MJ15015G	Quality_Score: 0.55	
		MJ15022			863-MJ15022G	Quality_Score: 1.20	
		MJ15024			863-MJ15024G	Quality_Score: 1.20	
		MJ21194			863-MJ21194G		
		MJ802			863-MJ802G	Quality_Score: 0.71	
		MJE3055			511-MJE3055T	Quality_Score: 0.46	
		<b>MJL21194</b>			863-MJL21194G	Quality_Score: 1.60	TO-264
		MJW21196			863-MJW21196G	Quality_Score: 1.45	
		SJ5135 Moto			Nope N/A		
		T-125 Solitron			Nope N/A		
		TIP41			511-TIP41C	Quality_Score: 0.43	
5	Q9,Q11 Driver	<b>BD140</b>		4	511-BD140		SOT-32 / TO-126 check
		KSA1220			Nope N/A		
		2SA1930			Nope N/A		
		2SA1837			Nope N/A		
		2SA968			Nope N/A		
		2SB649			Nope N/A		
		2SA1358			Nope N/A		
6	Q12,Q13 Sensor	BC546B (25+25VDC)		4	637-BC546B		TO-92
		<b>KSC1845 &gt; 25VDC</b>			512-KSC1845FTA		TO-92
		2SC2240 > 25VDC			Nope N/A		
		2SC2705 > 25VDC			Nope N/A		
		2N5551 > 25VDC			637-2N5551 / 610-2N5551		TO-92

No	Pos	Diode		Qty	Mouser Part No	Notes	Size
1	D1,D2,D3,D6,D10,D11	1N4148 or 1N914		12	512-1N4148		DO-35 4.56x1.91
2	D4,D5	MBR735 (5a to 10a 35v)		4	863-MBR735G		TO-220-2
		MBR1035			78-VS-MBR1035-M3		TO-220AC-2
3	D7	BAT86		2	771-BAT86113		DO-34-2 3x2
		BAS86			Nope N/A		
		BAT85			771-BAT85-T/R		DO-34-2 3x2
4	D8, D9	Zener BZX 500mW	6.8V	4	78-BZX55B6V2	See Sizing Chart	3.9 x 1.7 mm
			7.5V		78-BZX55B7V5		3.9 x 1.7 mm
			10V		78-BZX55B10		3.9 x 1.7 mm
			11V		78-BZX55B11		3.9 x 1.7 mm
			12V		78-BZX55B12		3.9 x 1.7 mm
			13V		78-BZX55B13		3.9 x 1.7 mm
			14V		771-NZX14C,133		4.2 x 1.8 mm
		DO-35-2	15V		78-BZX55B15		3.9 x 1.7 mm
			16V		78-BZX55B16		3.9 x 1.7 mm
			18V		78-BZX55B18		3.9 x 1.7 mm
			20V		78-BZX55B20		3.9 x 1.7 mm
			22V		78-BZX55B22		3.9 x 1.7 mm
			24V		78-BZX55B24		3.9 x 1.7 mm
1	Extruded Collar Heat Sink for TO5			4	532-326005B00000	For Q5, Q6	
2	Etc 1						
3	Etc 2						
4	Etc 3						
5	Etc 4						
6	Etc 5						
7	Etc 6						
8	Etc 7						
9	Etc 8						