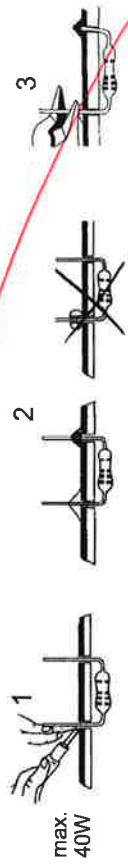


See attached pages!

Assignment: Double-sided board
 * Mikrofonen måste kopplas in enligt bifogad figur!

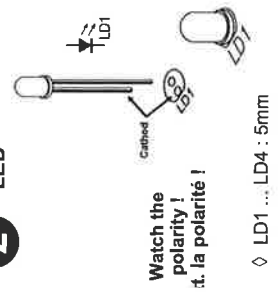
Soldering - Solderen - Soudage - Lötten - Soldadura - Lötning - Juottaminen - Saldatura - Solda



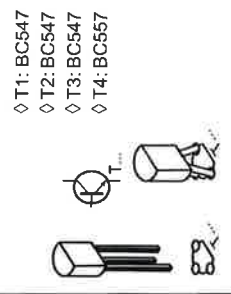
1 Resistor - Weerstand - Résistance - Widerstand - Resistencia - Motstand - Vastus - Resistenze

	◇ R1 : 10K	(Brown, Black, Orange) - (Bruin, Zwart, Oranje) - (Brun, noir, Orange) - (Braun, Schwarz, Orange) - (Brun, Svart, Orange) - (Ruskea, Musta, Oranssi) - (Marrón, Negro, Naranja)
	◇ R2 : 330K	(Orange, Orange, Yellow) - (Oranje, Oranje, Geel) - (Orange, Orange, Jaune) - (Orange, Orange, Gelb) - (Orange, Orange, Gul) - (Oranssi, Orange, Musta)
	◇ R3 ... R5: 100K	(Brown, Black, Yellow) - (Bruin, zwart, Geel) - (Brun, noir, Jaune) - (Braun, Schwarz, Gelb) - (Brun, Svart, Gul) - (Ruskea, Musta, Keltainen)
	◇ R6 ... R9: 47E	(Yellow, Purple, Black) - (Geel, Paars, Zwart) - (Jaune, Violet, Noir) - (Gelb, Violett, Schwarz) - (Gul, Lila, Svart) - (Keltainen, Purppura, Musta)
	◇ R10 ... R12: 1M5	(Brown, Green, Green) - (Bruin, Groen, Groen) - (Brun, Vert, Vert) - (Braun, Grün, Grün) - (Brun, Grön, Grön) - (Ruskea, Vihreä, Vihreä) - (Marrón, Verde, Verde)
	◇ R13, R14: 47K	(Yellow, Purple, Orange) - (Geel, Paars, Oranje) - (Jaune, Violet, Orange) - (Gelb, Violett, Orange) - (Gul, Lila, Orange) - (Keltainen, Purppura, Oranssi)

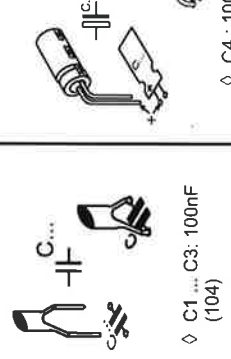
2 LED



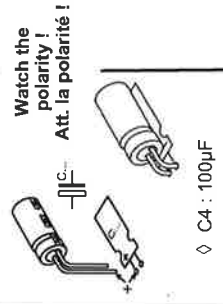
3 Transistor



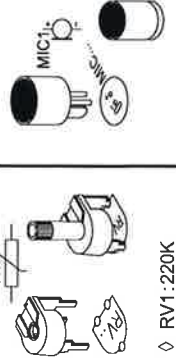
4 Capacitor



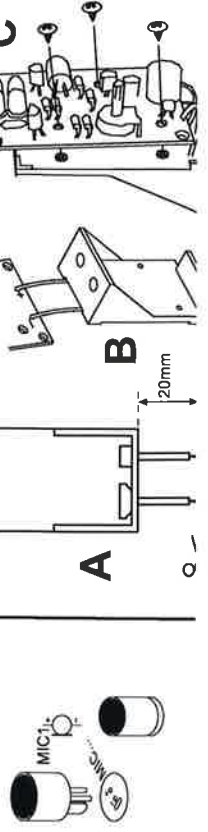
5 Electrolytic Capacitor



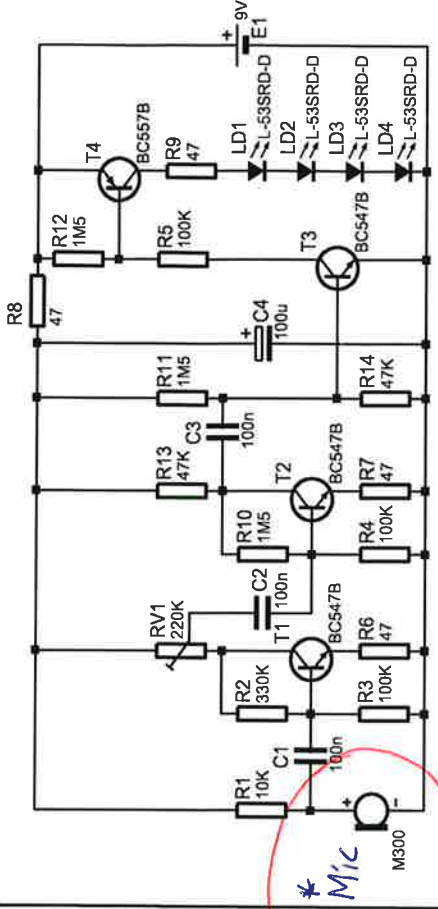
6 Trimmer



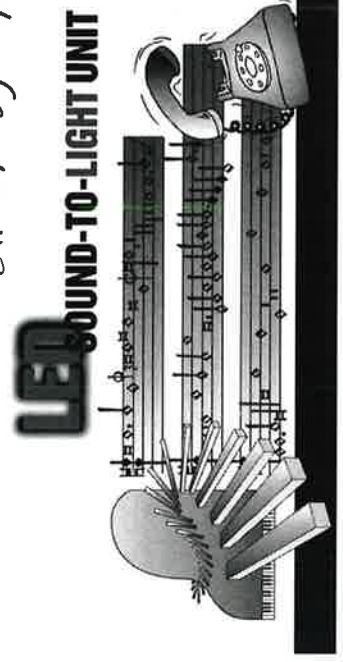
7 Microphone



8



- All resistors are SMD, size 0805
- 9V battery: attached by 2 pin connector.
- transistors: kepsel TO-92
- microphone: CMEJ-0605-36-L030 attach by 2 pin connector



- LEDs: are through hole components.
- Trimpotentiometer PT15NV15224A2020IPMS

MODEL: CMEJ-0605-36-L030 | DESCRIPTION: ELECTRET CONDENSER MICROPHONE

FEATURES

- omnidirectional
- 6 mm diameter
- 30 mm lead wires



ELECTRICAL

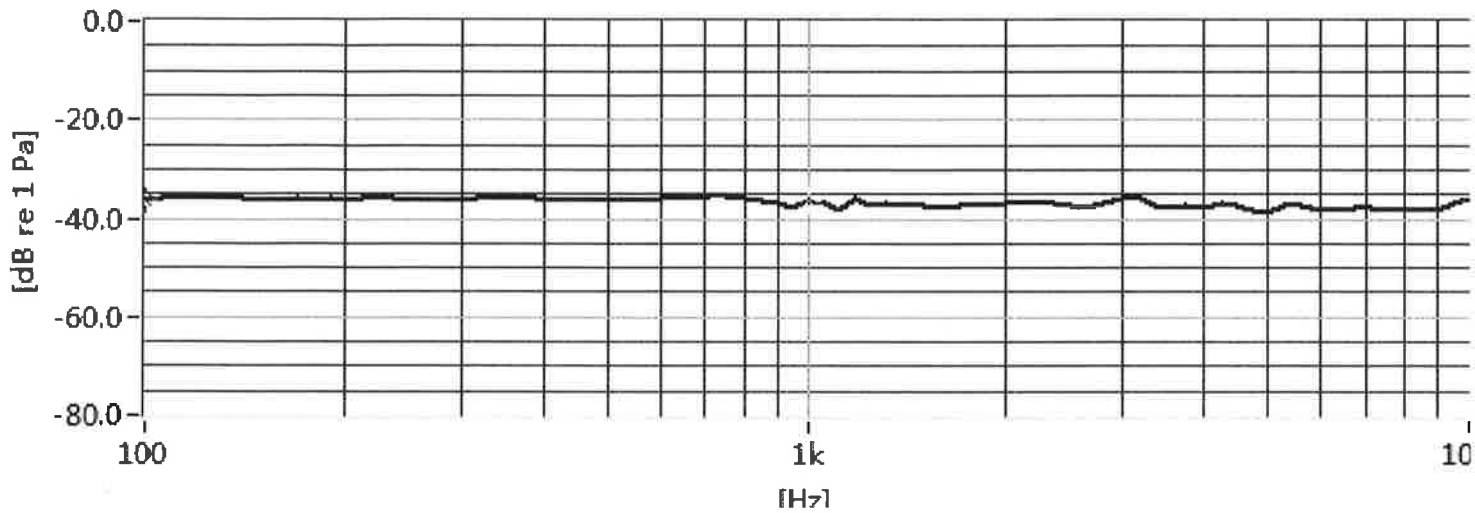
parameter	conditions/description	min	typ	max	units
directivity	omnidirectional				
sensitivity [S]	at 1 kHz [0 dB = 1 V/Pa]	-38	-36	-34	dB
supply voltage [V _{DD}]		1.0	2.0	10	V
current consumption	V _{DD} = 2.0 V, R _L = 2.2 kΩ			0.5	mA
sensitivity reduction	V _{DD} = 2.0 ~ 1.5 V			3	dB
frequency [f]		100		10,000	Hz
signal to noise ratio [S/N]	at 1 kHz, P _{in} = 1 Pa [A-weighted]		60		dBa
total harmonic distortion (THD)	at 94 dB SPL, 1 kHz			1	%
	at 115 dB SPL, 1 kHz			3	%
acoustic overload point (AOP)	at 1 kHz			115	dB SPL
output impedance [Z _{out}]	at 1 kHz			2.2	kΩ

Notes: 1. All specifications measured at 20±2°C, humidity at 60~70%, unless otherwise noted.

ENVIRONMENTAL

parameter	conditions/description	min	typ	max	units
operating temperature		-40		70	°C
storage temperature		-40		85	°C
operating humidity	non-condensing	30		85	%
storage humidity	non-condensing	30		75	%
hand soldering	for 1~3 seconds	340	350	360	°C
RoHS	yes				

FREQUENCY RESPONSE CURVE



APPLICATION CIRCUIT

