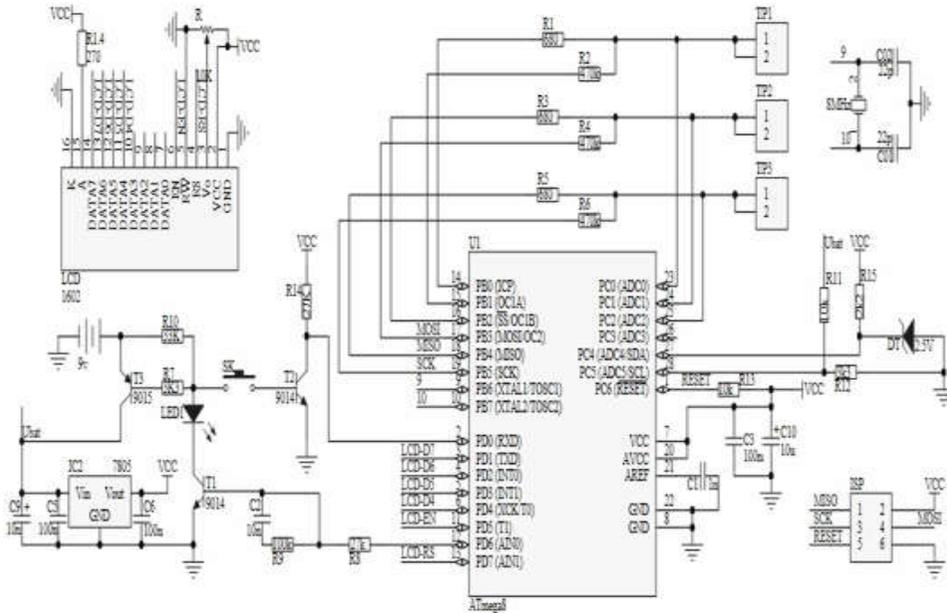
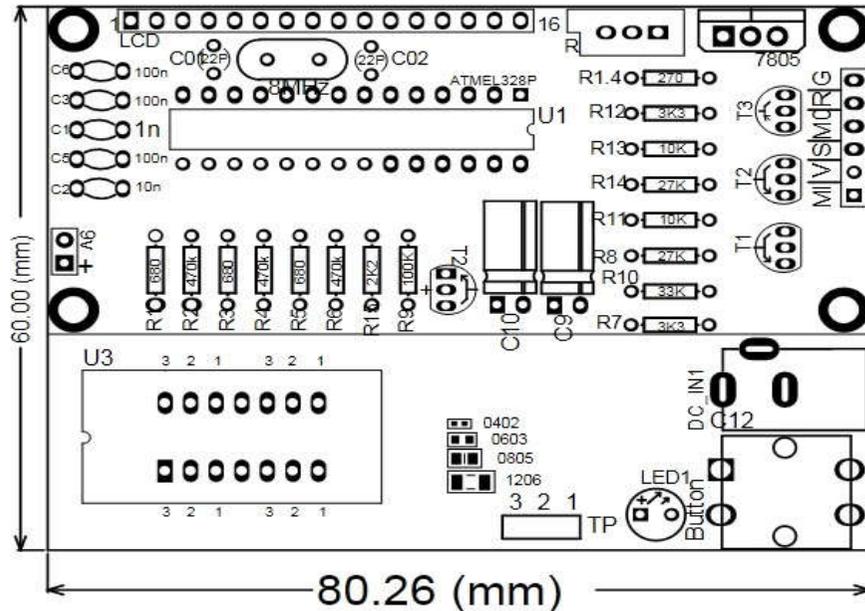


YD-CS Transistor test specification

1.Circuit diagram



2. PCB components follow this diagram view of a mounting components:



3.Detailed list of components

element	Serial number	specifications	note
1 resistance	R2, R4, R6	470kΩ 1%	Huang zi black orange brown
2 resistance	R1, R3, R5	680Ω 1%	Blue grey black and brown
3 resistance	R15	2K2 1%	Red and black brown brown
4 resistance	R1.4	270Ω 1%	Red purple black and brown
5 resistance	R12, R7	3K3 1%	Orange orange dark brown, brown,
6 resistance	R13, R11	10K 1%	Brown black, black and brown
7 resistance	R14, R8	27K 1%	Red violet black and brown
8 resistance	R10	33K 1%	Orange orange red, brown
9 resistance	R9	100K 1%	Brown, black and orange brown
10 crystals	8MHZ	8MHZ	nonpolar
11 Rows of pinhole	—	16Pin	2.54 spacing, plug-in
12Adjustable resistance	R	10K (103)	Place according to the graph
13Voltage chip	WS78L05	WS78L05 TO-92	Place according to the graph
14 triode	T1, T2	S8050 TO-92	Place according to the graph
15 triode	T3	S8550 TO-92	Place according to the graph
16 Zener diode	DT	LM336Z25 TO-92	Place according to the graph
17 Power terminal	DS_9V	The DC plug	Place according to the graph
18 Key switch	Button	Touch your keys	Cap with a button
19 LED	LED1	Yellow LED	Long is short negative
20 capacitance	C9, C10	10uf electrolytic capacitor	White is negative
21 IC lock block	U3	14 p lock block IC	dual-in-line
22 IC low seat	U2	28P	dual-in-line
23 capacitance	C3, C5, C6	104 100nf	nonpolar
24 capacitance	C1	102 1nf	nonpolar
25 capacitance	C2	103 10uf	nonpolar
26 r ATMEGA328P-PU	U1	ATMEGA328P-PU	Place according to the graph
27 capacitance	C7, C8	22PF 50V	nonpolar

4. Soldering reference step:

4.1 Soldering components from low to high, the first welding resistance, which try to stick flat PCB, neat appearance, unified direction;

4.2 After Soldering 8MHZ crystal, then soldered on both sides of 22pf capacitance;

4.3 Then, the Soldering C6, C3, C1, C5, C2 capacitor row, and then Soldering U2 IC seat;

4.4 Then soldered LED1, T1, T2, T3, 7805, soldering C10, C9, DT, R (adjustable resistance), LCD1;

4.5 Finally, Soldering 14PIN IC Block, 9V power outlets, key switch;

4.6 Soldered each step, you can cut Component pin.

5. Function realization :

5.1 a key measurement operation, auto power off delay. Shutdown current is only 20nA, support for battery operation.

5.2 Automatic detection PNP and NPN bipolar transistor, N, P-channel MOSFET, JFET field effect transistors, diodes, two diodes, thyristors, resistors, capacitors, inductors. Automatic detection pin definitions. Current amplification factor (B)

5.3 Measurement bipolar transistor and the emitter of the turn-on voltage (Uf). Darlington transistor can be identified by the amplification factor of the high threshold voltage and high current.

5.4 can detect bipolar transistors and MOSFET protection diode inside and displayed on the screen.

5.5 measured threshold voltage and gate capacitance of the MOSFET.

5.6 supports two measuring resistors, potentiometers can also be measured. If the potentiometer is adjusted to its end, the tester can not distinguish between the middle and the ends of the pins.

5.7 The resolution of the resistance measurement is 0.1 ohms and the highest measured value is 50M ohms.

5.8 Capacitance measurements range from 25pf to 100mF (100 thousand UF). Resolution up to 1 pF, inductance measurement range of 0.01MH-20H, less than 0.01MH will be displayed as a resistor.

5.9 The equivalent series resistance (ESR) of the capacitor above 2UF can be measured with a resolution of 0.01 ohms. This feature is very important for the detection of capacitive performance.

5.10 Two diodes can be displayed in the correct direction of the symbol, while showing the forward voltage drop.

5.11 LED is detected as a diode, the forward voltage drop is higher than the normal value. Dual LED detection for dual diode. Detection of light emitting diode will shine.

Note:

1. For the first time, after electrify, please adjust the side of a 103 blue and white adjustable resistance make the LCD screen lights up.

2. Remember that 9 v dc power supply, the power of positive and negative don't wrong.

3. Remember that before the measurement of capacitance, to discharge, otherwise damage the chip.

4.1, 2, 3, as a set of measurement point, measuring just pick any two or three points.