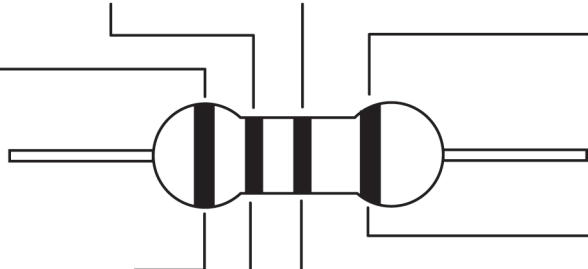


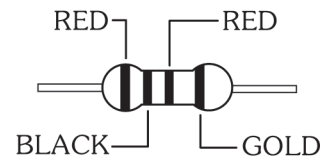
HOW TO READ THE VALUE OF RESISTOR

ROW1 ROW2 ROW3 (Multiplier) ROW4 (Tolerance)

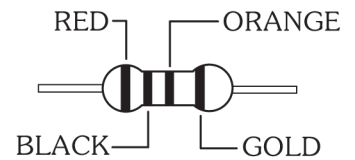


BLACK	0	0	x1	-
BROWN	1	1	x10	±1%
RED	2	2	x100	±2%
ORANGE	3	3	x1,000	-
YELLOW	4	4	x10,000	-
GREEN	5	5	x100,000	-
BLUE	6	6	x1,000,000	-
VIOLET	7	7	x10,000,000	-
GRAY	8	8	-	-
WHITE	9	9	-	-
GOLD	-	-	x0.1	±5%
SILVER	-	-	x0.01	±10%

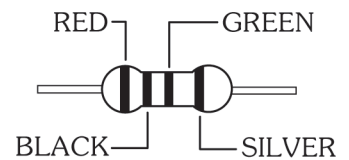
EX: $2K\Omega \pm 5\%$



EX: $10K\Omega \pm 5\%$



EX: $2M\Omega \pm 10\%$



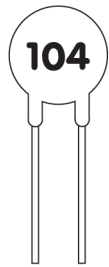
$1,000\Omega = 1K\Omega$

$10,000\Omega = 10K\Omega$

$1,000K\Omega = 10M\Omega$

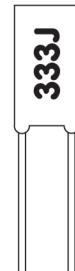
$4,700\Omega = 4K7\Omega$

HOW TO READ THE VALUE OF CAPACITOR



CERAMIC CAPACITOR

104
10 0000 pF
OR
0.1 μ F



MILA CAPACITOR

333J
33 000 pF ±5%
OR
0.033 μ F ±5%

DATA CAPACITORS

pF, picoFarads = 10^{-12} F

nF, nanoFarads = 10^{-9} F

μ F, microFarads = 10^{-6} F

1000 pF = 1 nF

1000 nF = 1 μ F

e.g.

4n7 = 4.7nF =

4700pF or 0.0047 μ F

3 = 3 pF

15 = 15 pF

101 = 100 pF

681 = 680 pF

102 = 0.001 μ F

103 = 0.01 μ F

104 = 0.1 μ F

105 = 1 μ F

222 = 0.0022 μ F

223 = 0.022 μ F

332 = 0.0033 μ F

333 = 0.033 μ F

472 = 0.0047 μ F

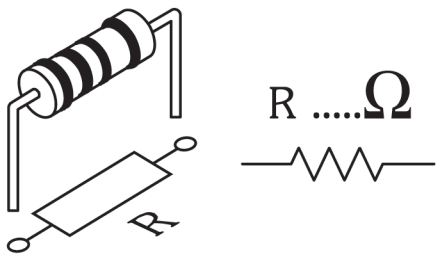
473 = 0.047 μ F

THE VALUE OF TOLERANCE

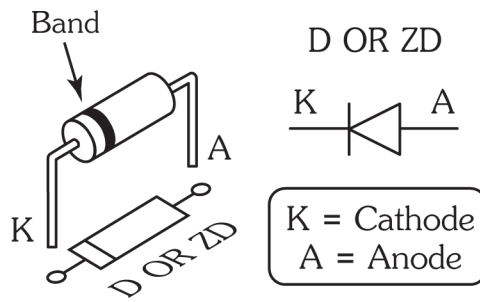
J = ±5%, K = ±10%, M = ±20%

ASSEMBLY INSTRUCTIONS

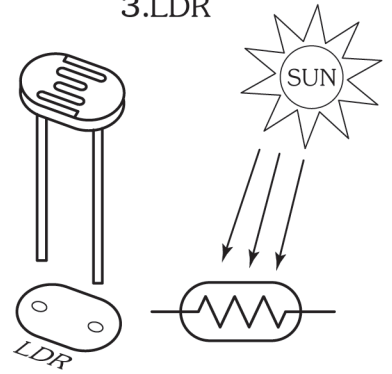
1.RESISTOR



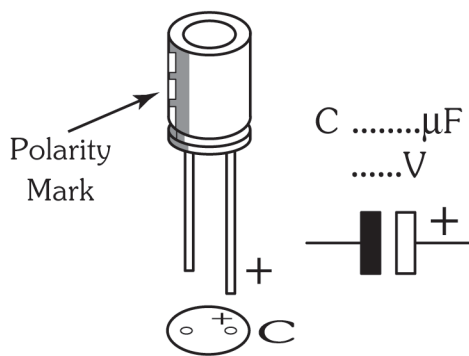
2.DIODE OR ZENER DIODE



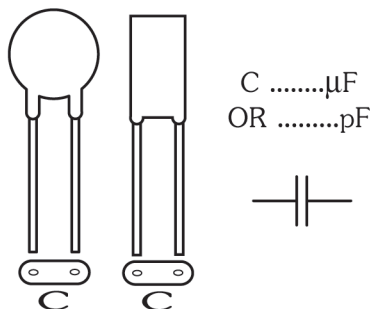
3.LDR



4.ELECTROLYTIC CAPACITOR



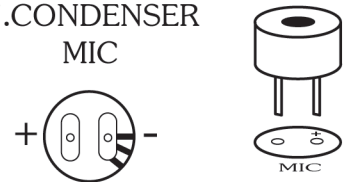
5.CERAMIC AND MILA CAPACITOR



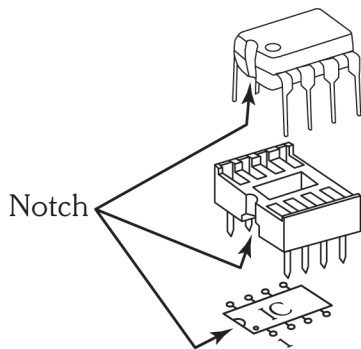
6.PUSH BOTTON SWITCH



7.CONDENSER MIC

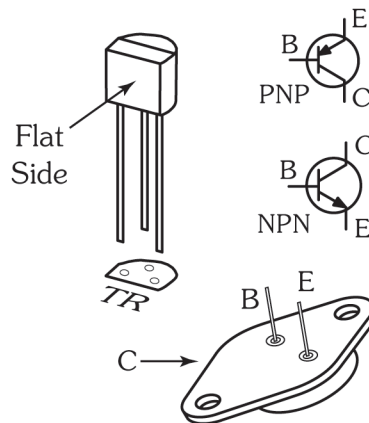


8.INTEGRATED CIRCUIT (IC)

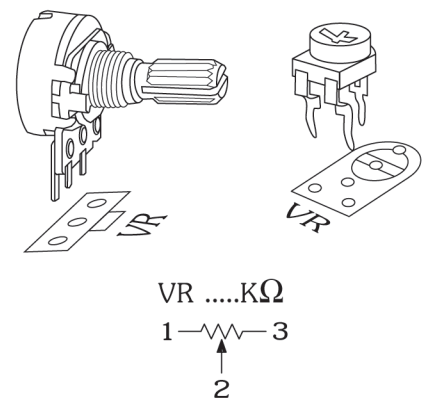


NOTE: WATCH THE POSITION OF THE NOTCH

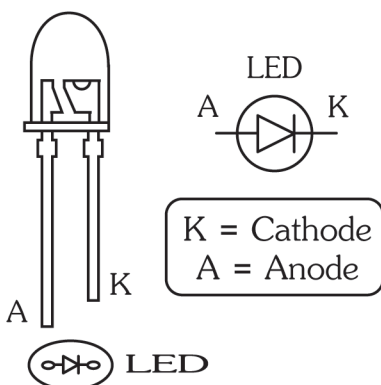
9.TRANSISTOR



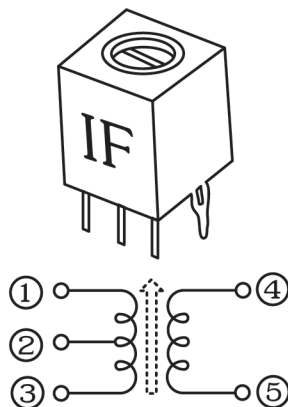
10.POTENTIOMETER



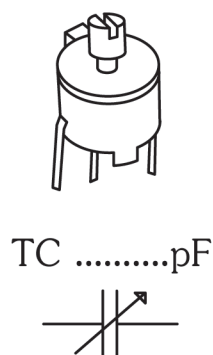
11.LED



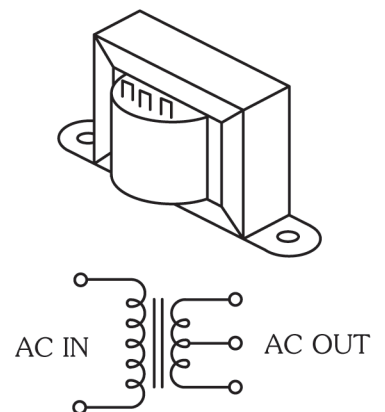
12.IF TANK



13.TIMMER CAPACITOR

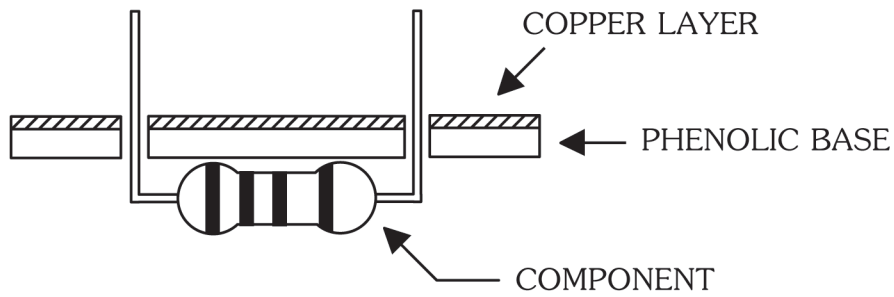


14.TRANSFORMER



SOLDERING COMPONENTS TO THE PC BOARD

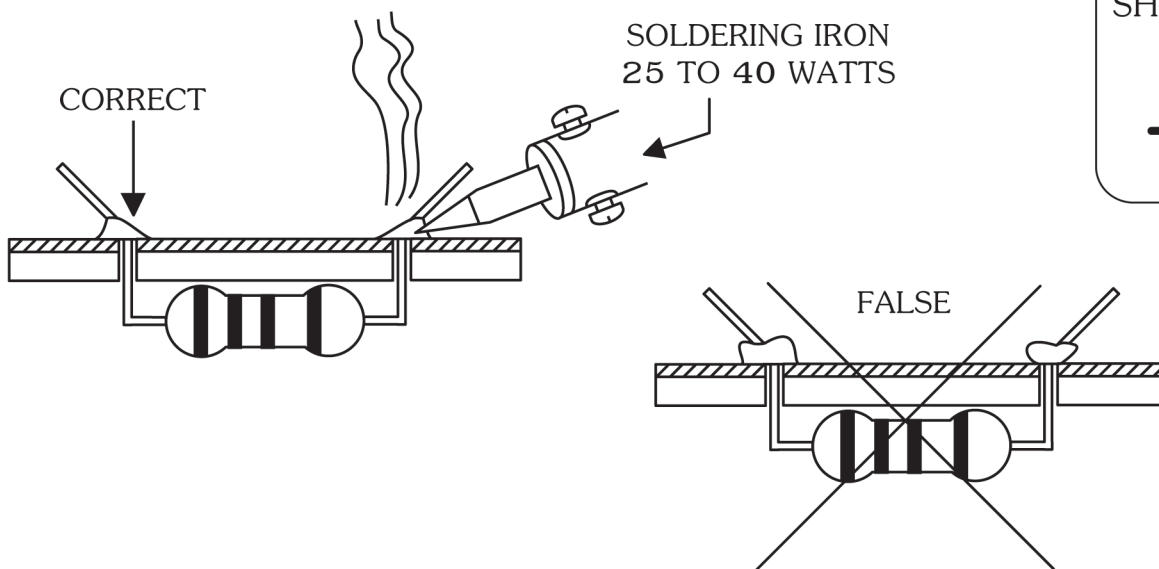
- ① Mount the components to the PC board.



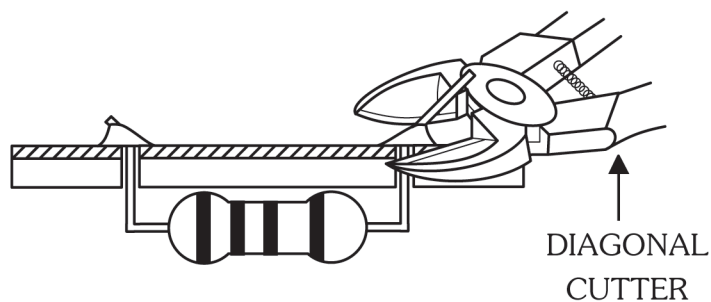
- ② Bend leads to hold the components.



- ③ Soldering the components and the PC board with the soldering iron and the solder.



- ④ Cut off all leads of the components.



HOW TO INSTALL THE TRANSISTOR WITH SINK

