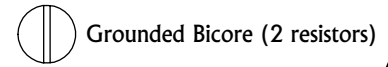


The BC2 Bicore



The BC2 Bicore is a self-starting, triple-buffered oscillator that can be run in suspended mode (1 resistor - R4) or grounded mode (2 resistors - R5, R6).

In suspended mode, the Bicore outputs a 50/50 duty cycle in a frequency proportional to the resistance value. In grounded mode, the Bicore can output an asymmetric square wave, with differing on/off time values.

The suspended resistor location R4 is the same as placing a resistor across the inputs I1 and I2.

The board is pre-wired "on", although there is resistor location R1 for those who wish to enable manual toggling by simply cutting a trace on the bottom of the PCB.

The 74AC240 is spec'd to provide 24mA drive current per channel, so this device should be able to drive a 72mA load at or under 6V.

Necessary Parts:

- 1 x 74AC240
- 2 x 0.1 μ F Monolithic Timing Capacitor (C1, C2)
- 1 x 22 μ F Electrolytic Pwr Filtration Capacitor (C3)
- 2 x LED (L1, L2)
- 2 x 470 Ω LED resistors (Yellow/Purple/Brown) (R2, R3)

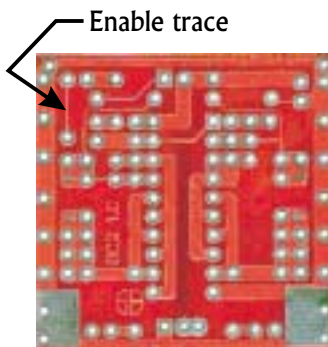
Other Parts:

- 1 x R4 Suspended-mode resistor (or)
- 2 x R5, R6 Grounded-mode resistors
- 1 x R1, Optional Enable resistor (47k)
- 2 x 0.22 μ F Capacitors replacing the 0.1 μ F capacitors



Top

- Edge Rail of PCB is Ground (-)
- Center Rail down middle is Vcc (+)
- PCB pre-enabled "on". Can over-ride by cutting trace on bottom, and adding resistor R1.
- Inputs have 3 pads, labeled with arrow pointing inwards on bottom.
- Outputs have 7 pads, labeled with arrow pointing outwards on bottom.
- Optional LED indicators at L1 & L2 require current-limiting resistors R2 & R3



Bottom

