CH-012 Transistor Curve Tracer Adapter for OSC

This board has to be used with analog or digital oscilloscope which can display the signal in x-y mode, it is designed to has 2 ranges of Ib to bias 2 types of transistor , Small transistor / Power transistor and requires dual power supply +15V and -15V, due to main of components are op-amp which need dual supply to operate

Technical information.

-Require Power supply +15VDC/-15VDC (1A)
-Capable to check IV curve both NPN / PNP Power Transistor / Small Transistor
-8 step Ib 0uA,24uA,48uA,72uA,96uA,120uA,144uA,168uA for small transistor
-8 step Ib 0.0mA,0.32mA,0.64mA,0.96mA,1.28mA,1.6mA,1.92mA,2.24mA,
Vce = +10V for NPN and -10V for PNP
-Switching frequency 642Hz
-2 Jumper to select ranges of Ib and type of transistor { NPN / PNP }
-hole PCB for wiring to external 2 way switches to select ranges of ib and type of transistor
-Require 2 CH Analog or Digital Oscilloscope in x-y mode to connect both CH to this adapter board (CH1 is X-Axis and CH2 is Y-Axis)
-PCB size 9.0cm x 10.0cm

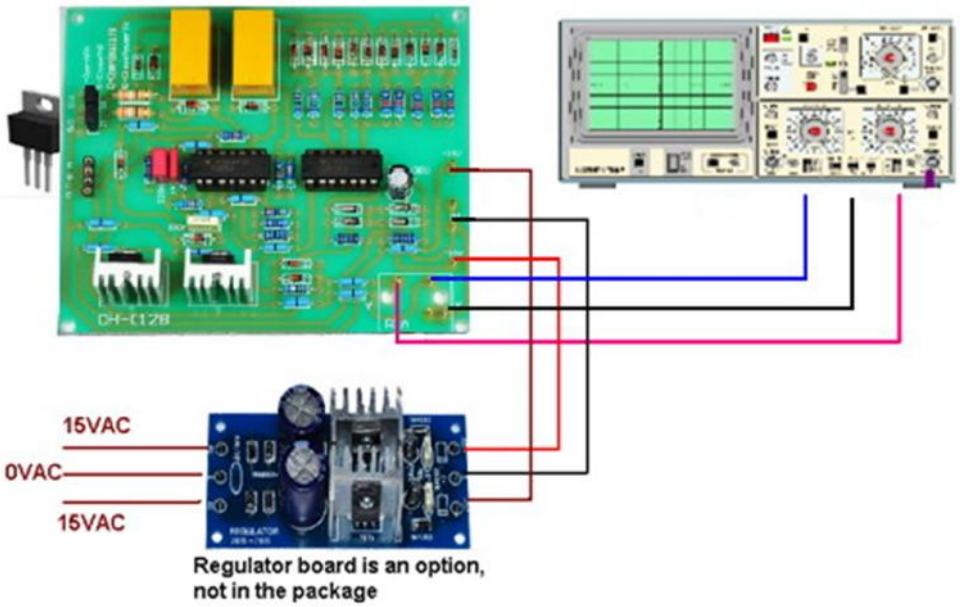
How to setup

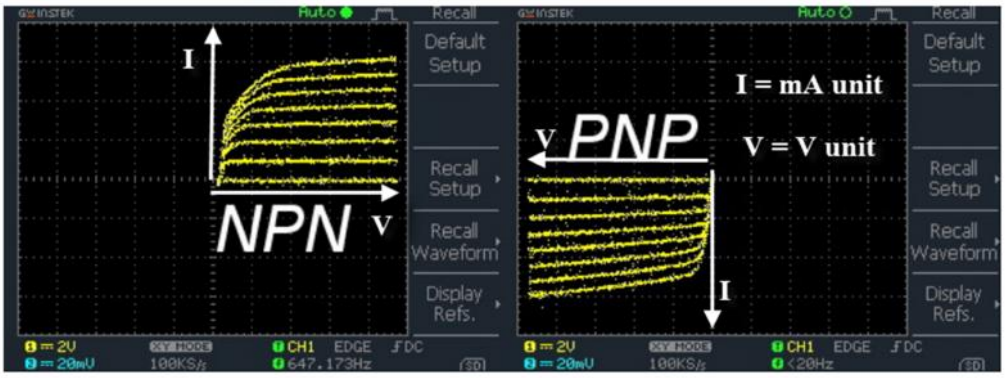
- Switch on OSC
- Connect X to CH1 of OSC and Y to CH2 of OSC
- Connect dual power supply to the board { don't swop between +15V and -15V }
- Set time base of OSC to 500us to 1ms
- Volt per DIV of CH1 = 2V / DIV
- Volt per DIV of CH2 = 20-100mV / DIV
- Put jumper to be suitable with your transistor NPN/PNP , first start with small transistor range .
- Put transistor on test DUT socket, please put correct pin E , C , B. Don't swop
- Power on the IV curve tracer board
- If no graph or you see only a few IV curves, this means that ib are not enough. Change jumper to select power transistor

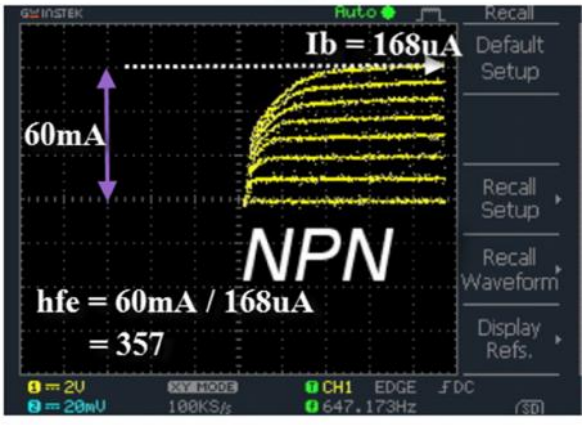
Warning : Don't select between NPN / PNP during transistor is on the test DUT. Transistor maybe damaged.

Note : Please ignore RCA connector on PCB layout. We stopped to use this RCA connector since 2014. So, No RCA connector in this kit.

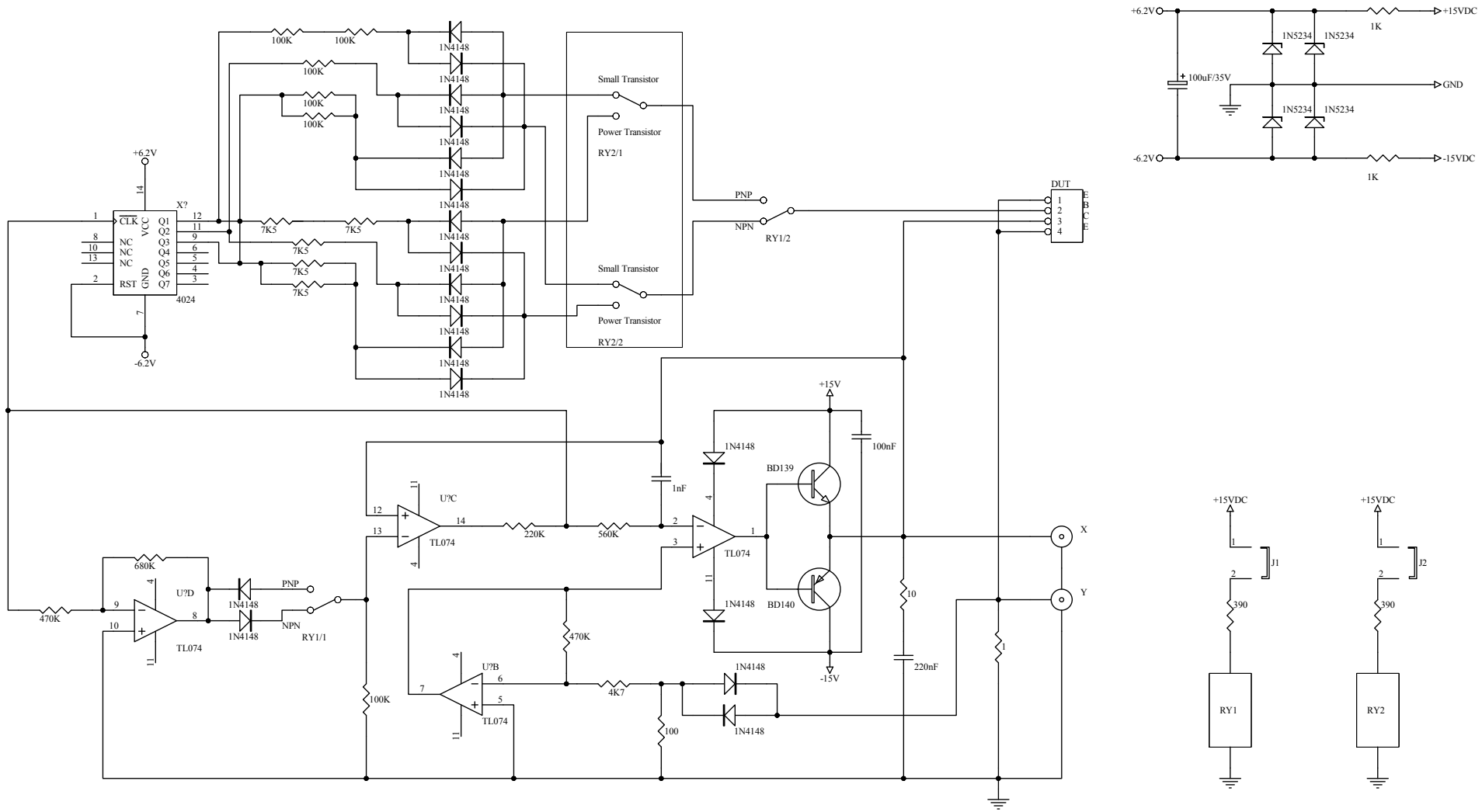
Diagram how to set-up







Example how to calculate hfe of transistor



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