

Mono Stable Revisited

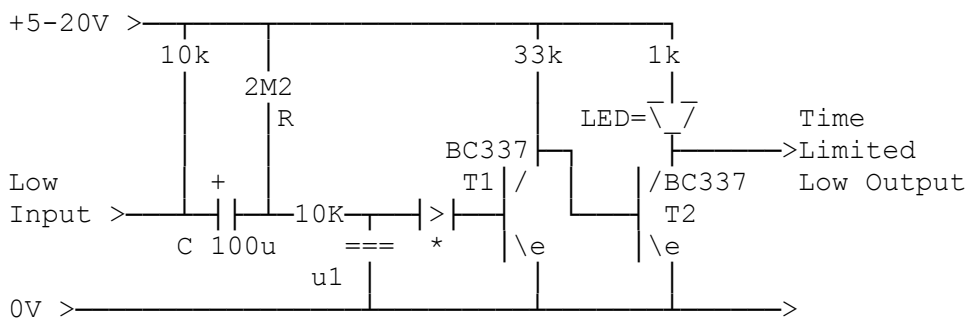
By G8MNY

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(8 Bit ASCII graphics use code page 437 or 850, Terminal Font)

I needed a timer to timeout a 0V ON signal, on a Tx after a few minutes for RDS Traffic flag. I had done it before with a 555 timer & input & output conditioning inverters, all far too complex really. So I had a re-think on the basic 2 transistor circuit, & came up with this simple junk box design.

A similar circuit can be used on PTT line of most Tx to limit key up time!



With no input, T1 is on & T2 held off. The 33k must be low enough to get 0V out of T2 with required load, & the 2M2 must be low enough for T1 to turn of T2. Higher gain transistor like the BC109c (900 Hfe) can be used for T1 with R of 10M \hat{U} for longer times, if the cap C is really low leakage.

With the input low, a negative voltage equal to the power rail, is applied to T1's base, holding it off for around 200 seconds. The CR time constant of 2M2 with the 100uF cap sets the time, but a leaky C will only shorten the time slightly in this circuit.

T1s Base 10K & u1 give basic false pulse/RF imunity.

On 5V the diode (* 1N4148) can be omitted as it is not needed to protect T1's base from going too negative & damaging T1.

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73 De John, G8MNY @ GB7CIP