Multi-Melody Generator with Instrumental Effect by CIC2850 Series

You will never be bored Simple melody generator circuits. They are very useful for adding color to various electronic projects. Let's say you build a sound the alarm in the morning with their children. If you use siren to warn children not appropriate. Make him was shocked. Try changing the sound of music. Helps to hear more.

Normally we use the IC circuit. Because it is convenient and small.

CIC2850 is IC that evolve from CIC2813. Designed to least external devices, are only a resistor and a transistor.
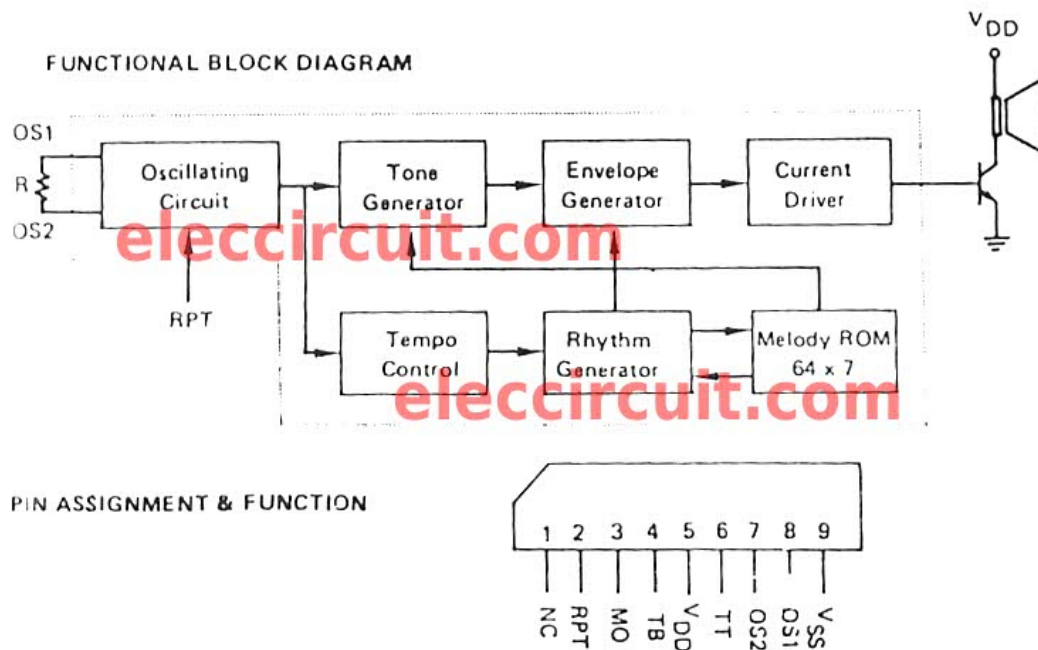
Common features.

1.Applied to voltage range of 1.3 – 5 volts.

2. There are 64 note memory.

3. They can stop automatically.

4. Can repeat forever.

The introduction of the song, it always starts from the first note.

There is tempo to choice of 5 strokes.

The CIC2850-IC is a 9 pin form inside IC consists of various circuits as show in figure 1

FUNCTIONAL BLOCK DIAGRAM

PIN ASSIGNMENT & FUNCTION

From block diagram circuit internal IC. We may describe the work of various parts circuit has been roughly as follows.

The oscillator is a clock signal generator circuit that the frequency of them is determined by the outside resistor, which normally use a value of 100KHz

Rom has size is 64 Word 7 bit by that 4 bit will be used to control the rhythm generator. In operation the automatically stop form will use memory of 63 word , and next the 1 word use to control a tone generator circuit as editor program which will devidethe frequency from oscillator ROM CODE, The frequency of tone generator will has 2 tempo.

The envelope generator comprises ROM and different current source 4 set. The ROM will set a code to turn ON-OFF current driver circuit all 4 set. The current output is a external transistor drive, to a music sound generators.

List of music.

Full standard typed list of CIC285 improved simple melody generator.

CIC-285 (Jingle Bell)

CIC-2851 (Jingle Bell + Santa Claus is coming to town+We wish you a merry Christmas)
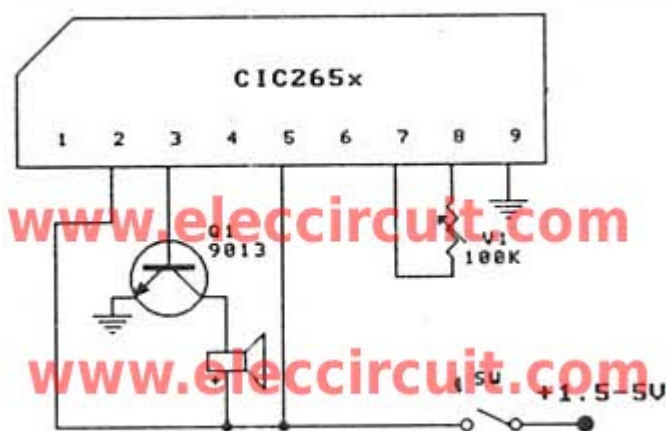
CIC-2852 (Silent Night)

CIC-2853 (Jingle Bell +Rudolph,the red nosed reindeer +Joy to the world

CIC-2854 (Little Drummer Boy)

CIC-2855 (O Tannenbaum; Christmas tree)

CIC-286 (Three Blind Mice + Farmer in the Forest)

CIC-2861 (Luilaby : Brahms)

CIC-2862 (Happy Birthday)

CIC-2863 (Westminster)

CIC-2864 (De Camptown Races + Little Brown Jug)

CIC-2865 (The Yellow Rose of Taxas)

CIC-2866 (Blue HAWAII +Aloha Oe)

CIC-287 (Blue Bell of Scotland)

CIC-2871 (Song of Joy : Beethoven Symphony No.9

CIC-2872 (Home Sweet home)

CIC-2873 (Cuckoo Waltz)

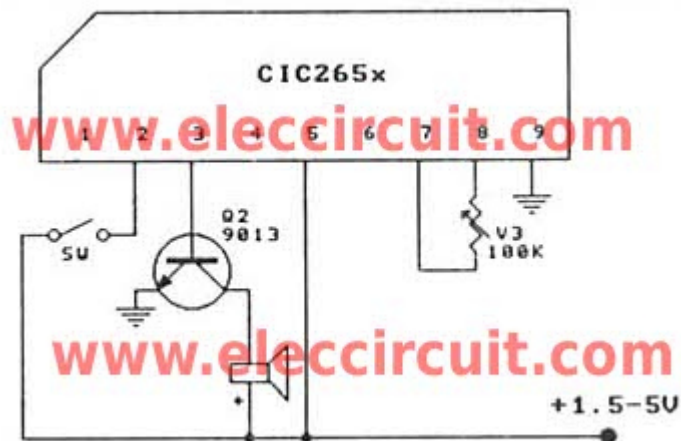CIC-2874 (Edetweiss)

CIC-2875 (For Elise)

The Form of Applications.

1. Continuous operation form

This connection of the circuit will work once and As long as the power supply to the circuit as circuit in figure 2
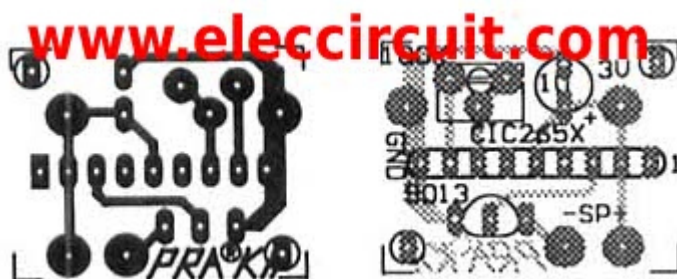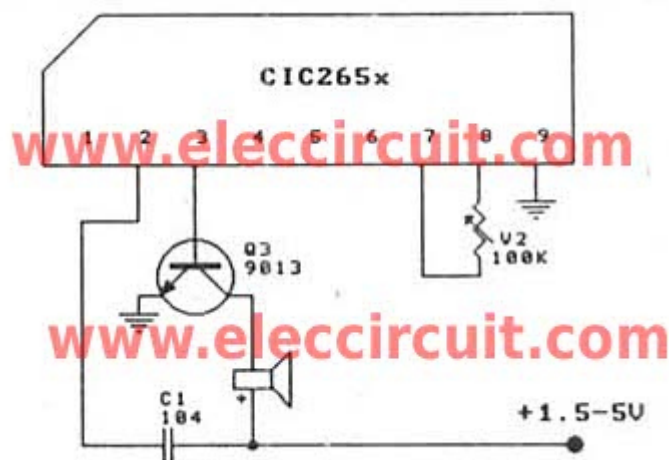
2. Ready continue to run Form

When supply to circuit, they will not working until we put a voltage to pin RPT (pin 2) The circuit so running all time as circuit in figure 3

3. AUTO STOP form

When put voltage to this circuit. The IC will working until end of song then stop automatically as shown in figure 4

How to builds

This circuit is simple so has a few components you can see PCB layout in figure 5

Check the circuit for error. When you are sure all the wires and components(IC- CIC285, Transistor CS9013, Speak) are installed correctly,