# UM66T-L Series <br> UM66T Simple Melody Generator 

## Features

- 64-note ROM memory
- 1.3 V to 3.3 V operating voltage and low power consumption
- Packaged in inexpensive TO-92 package
- Bulit-in RC oscillator
- Level-hold mode to play repeatedly
- Dynamic speaker can be driven with external NPN transistor.


## General Description

The UM66T series is a CMOS LSI designed melody generator IC for use in telephones and toys application. It has an on-chip ROM programmed for musical performance. Produced by CMOS technology, the device results in very low power consumption. And with built-in RC oscillator, a compact melody module can be constructed with only a few additional components.

## Absolute Maximum Ratings

| DC Supply Voltage | -0.3V | to +5.0 V |
| :---: | :---: | :---: |
| Operating Ambient Temperature | $-10^{\circ} \mathrm{C}$ | to $60^{\circ} \mathrm{C}$ |
| Storage Temperature | $-55^{\circ} \mathrm{C}$ | to $125^{\circ} \mathrm{C}$ |

## Electrical Characteristics

(Vss=0V, $\mathrm{Vdd}=1.5 \mathrm{~V}, \mathrm{Ta}=25^{\circ} \mathrm{C}$, unless otherwise specified.)

| Parameter | Symbol | Min. | Typ. | Max. | Conditions |
| :--- | :---: | :--- | :--- | :--- | :--- |
| Operating voltage | Vdd | 1.3 V | 1.5 V | 3.3 V |  |
| Current Consumption | Idd | - | $16 \mu \mathrm{~A}$ | $50 \mu \mathrm{~A}$ | Playing with no load |
| Output Current | $\mathrm{Io} / \mathrm{p}$ | 2 mA | - | - |  |
| Osc. frequency | Focs | 63 kHz | 90 kHz | 117 kH <br> z |  |

## Song Series List

| Part number | Song name |
| :--- | :--- |
| UM66T-01L | Jingle Bells + Santa Claus Is Coming To Town + We Wish You A Merry <br> Christmas |
| UM66T-05L | Home Sweet Home |
| UM66T-09L | Wedding March (Mendelssohn) |
| UM66T-19L | For Alice |
| UM66T-32L | Coo Coo Waltz |
| UM66T-68L | It Is A Small World |

## Pin Configuration (Front View)



| Pin no. | Symbol | Description |
| :---: | :--- | :--- |
| 1 | O/P | Melody Output |
| 2 | Vdd | Positive Power Supply |
| 3 | Vss | Negative Power Supply |

## Typical Application Circuits

## LEVEL HOLD MODE FOR SPEAKER LEVEL HOLD MODE FOR PIEZO BUZZER



Recommended values : $\mathrm{C}=1 \mu \mathrm{~F}, \mathrm{R}=4.7 \mathrm{~K} \Omega, \mathrm{Q}=2 \mathrm{SC} 9013$

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