

# UM66T-L Series

## UM66T Simple Melody Generator

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### Features

- 64-note ROM memory
- 1.3V to 3.3V operating voltage and low power consumption
- Packaged in inexpensive TO-92 package
- Built-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 +5.0V  
 Operating Ambient Temperature ..... -10°C to 60°C  
 Storage Temperature ..... -55°C to 125°C

### Electrical Characteristics

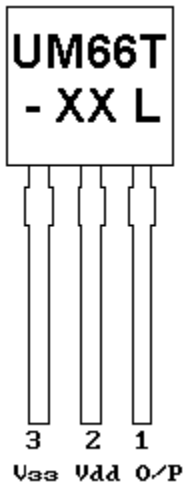
(V<sub>ss</sub>=0V, V<sub>dd</sub>=1.5V, T<sub>a</sub>=25°C, unless otherwise specified.)

| Parameter           | Symbol           | Min.  | Typ.  | Max.   | Conditions           |
|---------------------|------------------|-------|-------|--------|----------------------|
| Operating voltage   | V <sub>dd</sub>  | 1.3V  | 1.5V  | 3.3V   |                      |
| Current Consumption | I <sub>dd</sub>  | -     | 16μA  | 50μA   | Playing with no load |
| Output Current      | I <sub>o/p</sub> | 2mA   | -     | -      |                      |
| Osc. frequency      | F <sub>ocs</sub> | 63kHz | 90kHz | 117kHz |                      |

### Song Series List

| Part number | Song name                   |
|-------------|-----------------------------|
| UM66T-08S   | Happy Birthday              |
| UM66T-09L   | Wedding March (Mendelssohn) |
| UM66T-19L   | For Alice                   |
| UM66T-68L   | It Is A Small World         |

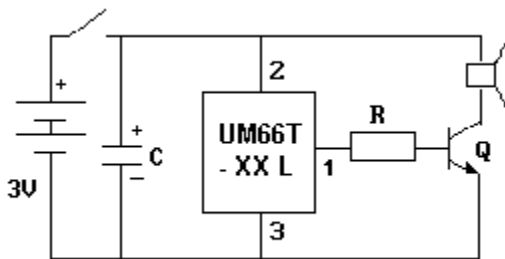
**Pin Configuration (Front View)**



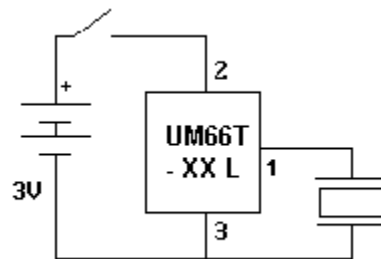
| Pin no. | Symbol | Description           |
|---------|--------|-----------------------|
| 1       | O/P    | Melody Output         |
| 2       | Vdd    | Positive Power Supply |
| 3       | Vss    | Negative Power Supply |

**Typical Application Circuits**

LEVEL HOLD MODE FOR SPEAKER



LEVEL HOLD MODE FOR PIEZO BUZZER



Recommended values : C = 1 $\mu$ F , R = 4.7K $\Omega$  , Q = 2SC9013

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