

# **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**

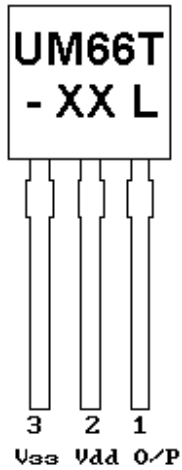
(V<sub>SS</sub>=0V, V<sub>DD</sub>=1.5V, T<sub>a</sub>=25°C, unless otherwise specified.)

| 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>osc</sub> | 63kHz | 90kHz | 117kHz |                      |

### **Song Series List**

| Part number | Song name                                                                    |
|-------------|------------------------------------------------------------------------------|
| UM66T-01L   | Jingle Bells + Santa Claus Is Coming To Town + We Wish You A Merry 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                                                          |

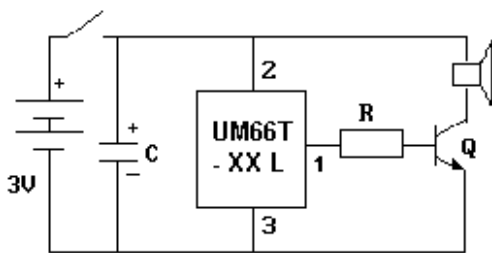
### Pin Configuration (Front View)



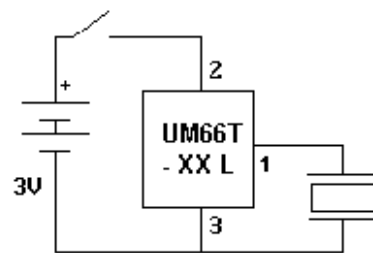
| Pin no. | Symbol | Description           |
|---------|--------|-----------------------|
| 1       | O/P    | Melody Output         |
| 2       | Vdd    | Positive Power Supply |
| 3       | Vss    | Negative Power Supply |

### Typical Application Circuits

#### LEVEL HOLD MODE FOR SPEAKER



#### LEVEL HOLD MODE FOR PIEZO BUZZER



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

REV.11-98 (2 pages)