

# UM88T-19L

## Dual-tone Melody Generator

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### Features

- 127-note ROM memory
- Sound range : 2.5 octaves, 2 series
- Tempo : 16 kinds (presto-largo)
- Double sound sources
- Digital envelop effect
- 1.3V to 3.3V operating voltage
- Built-in RC oscillator
- Power-on reset, melody begins from 1<sup>st</sup> note
- With external npn transistor to drive speaker
- Packaged in inexpensive TO-92 package

### General Description

The UM88T series is a CMOS LSI designed melody generator IC with accompaniment for use in telephones and toys application. It has an on-chip ROM programmed for dual-tone 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.

### Electrical Characteristics

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

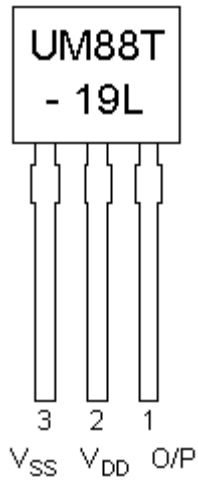
Parameter	Symbol	Min.	Typ.	Max.	Conditions
Operating voltage	V <sub>DD</sub>	1.3V	1.5V	3.3V	
Current Consumption	I <sub>DD</sub>	-	-	1mA	Playing with no load
Output Current	I <sub>O/P</sub>	0.6mA	1.5mA	-	

### Song Series List

Part number	Song name
UM88T-19L	For Alice

### Pin Configuration (Front View)

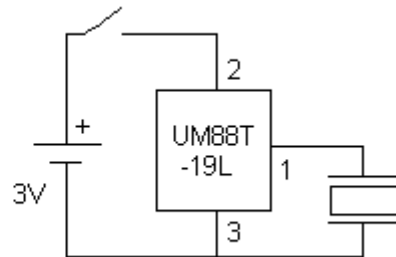
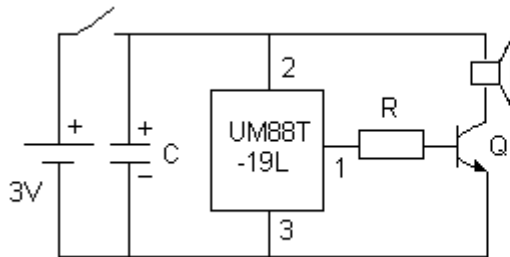
Pin no.	Symbol	Description
1	O/P	Melody Output
2	V <sub>DD</sub>	Positive Power Supply
3	V <sub>SS</sub>	Negative Power Supply



### 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.9-01 (2 pages)