

UM88T-19L

Dual-tone Melody Generator

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 1st 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_{SS}=0V, V_{DD}=1.5V, T_a=25°C, unless otherwise specified.)

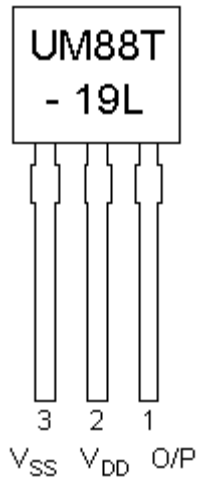
Parameter	Symbol	Min.	Typ.	Max.	Conditions
Operating voltage	V _{DD}	1.3V	1.5V	3.3V	
Current Consumption	I _{DD}	-	-	1mA	Playing with no load
Output Current	I _{O/P}	0.6mA	1.5mA	-	

Song Series List

Part number	Song name
UM88T-19L	For Alice

Pin Configuration (Front View)

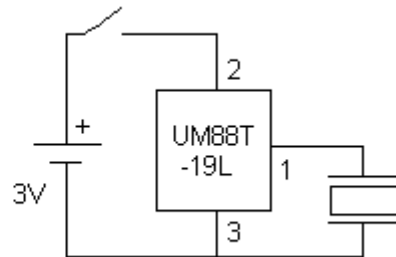
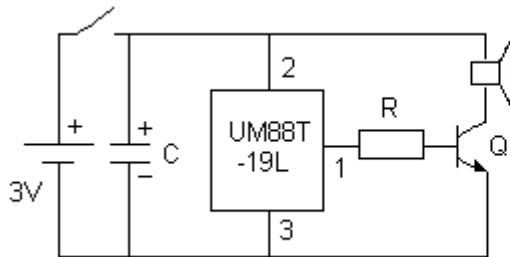
Pin no.	Symbol	Description
1	O/P	Melody Output
2	V _{DD}	Positive Power Supply
3	V _{SS}	Negative Power Supply



Typical Application Circuits

LEVEL HOLD MODE FOR SPEAKER

LEVEL HOLD MODE FOR PIEZO BUZZER



Recommended values : C = 1 μ F , R = 4.7K Ω , Q = 2SC9013

REV.9-01 (2 pages)