

# UM77T-83L

## SOS sound and light generator

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### Features

- 2.4V to 4.5V power supply
- RC oscillator on chip
- Packaged in inexpensive TO-92 package
- Direct piezo drive
- Dynamic speaker can be driven with external NPN transistor.

### General Description

The UM77T-83L is a CMOS LSI designed IC. It generates light and sound "SOS" signals to drive LED and piezo buzzer. The IC starts at power-up and is level hold mode repeated with 1.4 sec pauses between "SOS" signals.

Produced by CMOS technology, the device results in very low power consumption. And with built-in RC oscillator, a module can be constructed with only a few additional components.

### Absolute Maximum Ratings (Ta = 25°C)

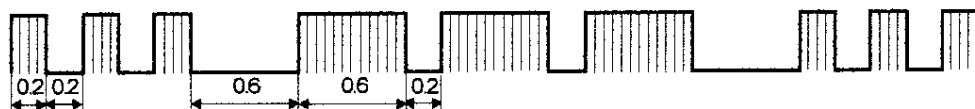
Characteristic	Symbol	Value	Unit
DC Supply Voltage	$V_{CC} - V_{SS}$	-0.3 ~ 5.5	V
Input Voltage	$V_{IN}$	$V_{SS} - 0.3 \sim V_{CC} - 0.3$	V
Operating Temperature	$T_{opr}$	-20 ~ +65	°C
Storage Temperature	$T_{stg}$	-55 ~ +125	°C

### Electrical Characteristics (Ta = 25°C, VCC = 3V, unless otherwise specified)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Operating Voltage	$V_{CC}$		2.4	3.0	4.5	V
Supply Current	$I_{CC}$	Output open			60	μA
Output Drive Current	$I_{OH}$	$V_O = 0.8V$	10	15		mA
Output Sink Current	$I_{OL}$	$V_O = 0.5V$	10	15		mA

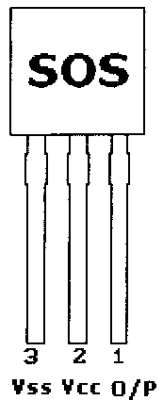
### SOS signal

4,096 Hz (50% duty)



Time is in seconds

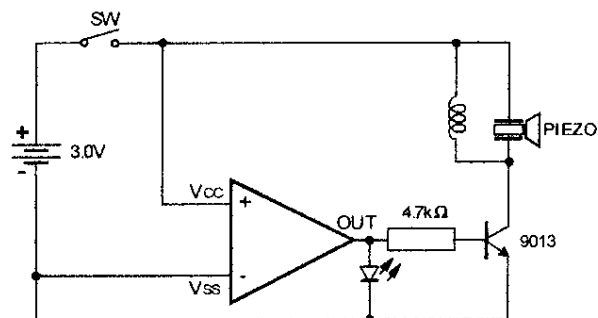
### Pin Configuration (Front View)



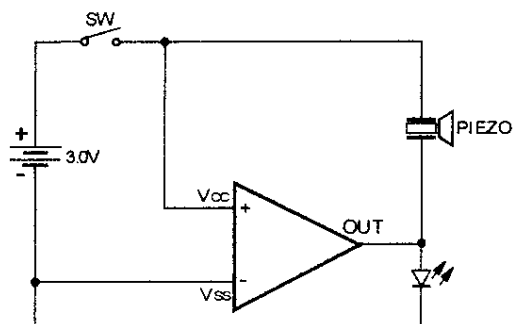
Pin no.	Symbol	Description
1	O/P	LED and sound Output
2	Vcc	Positive Power Supply
3	Vss	Negative Power Supply

### Typical Application Circuits

#### Level hold mode with transistor amplifier



#### Level hold mode for piezo buzzer



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