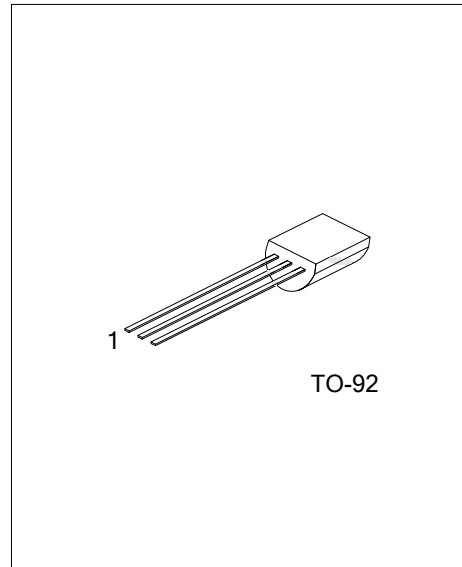




# UM68TXX

CMOS IC

## 128 NOTES DUAL TONE MELODY GENERATOR PWM OUTPUT DIRECT TO BUZZER AND SPEAKER



### DESCRIPTION

The UTC **UM68TXX** series are CMOS LSI designed for using in door bell, telephone and toy application. It is an on-chip ROM programmed for musical performance. Produced by CMOS technology, the device results in very low power consumption. Since the UTC **UM68TXX** series include oscillation circuits a compact melody module can be constructed with only a few additional components.

### FEATURES

- \* 128-Note Rom memory
- \* 2.5V ~ 5V power supply and low power consumption
- \* Dynamic speaker can be driven with external NPN transistor
- \* 14 tempos available through mask setting
- \* 15 beats available
- \* 27 notes (including rest) available
- \* OSC resistor hold mode
- \* Power on reset: melody begins from the first note
- \* Built in level hold mode
- \* PWM output

### ORDERING INFORMATION

Order Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
UM68TxxL-T92-B	UM68TxxG-T92-B	TO-92	V <sub>SS</sub>	V <sub>DD</sub>	O/P	Tape Box
UM68TxxL-T92-R	UM68TxxG-T92-R	TO-92	V <sub>SS</sub>	V <sub>DD</sub>	O/P	Tape Reel
UM68TxxL-T92-K	UM68TxxG-T92-K	TO-92	V <sub>SS</sub>	V <sub>DD</sub>	O/P	Bulk

<p>UM68TXXL-T92-B</p>	<p>(1) Packing Type (1) B: Tape Box, K: Bulk, R: Tape Reel</p> <p>(2) Package Type (2) T92: TO-92</p> <p>(3) Lead Plating (3) L: Lead Free, G: Halogen Free</p> <p>(4) Song Series (4) xx: refer to SONG SERIES LIST</p>
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### SONG SERIES LIST

P/N	SONG NAME
UTC UM68T05	Sweet Home
UTC UM68T08	Happy Birthday
UTC UM68T19	For Alice

■ **ABSOLUTE MAXIMUM RATING**

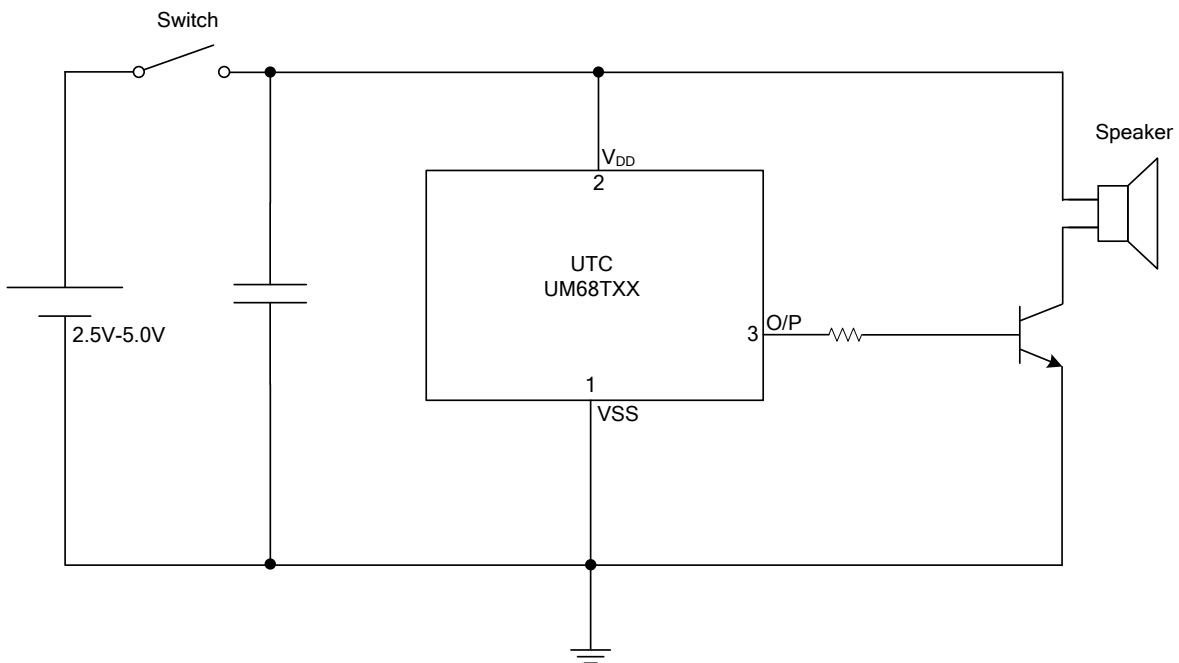
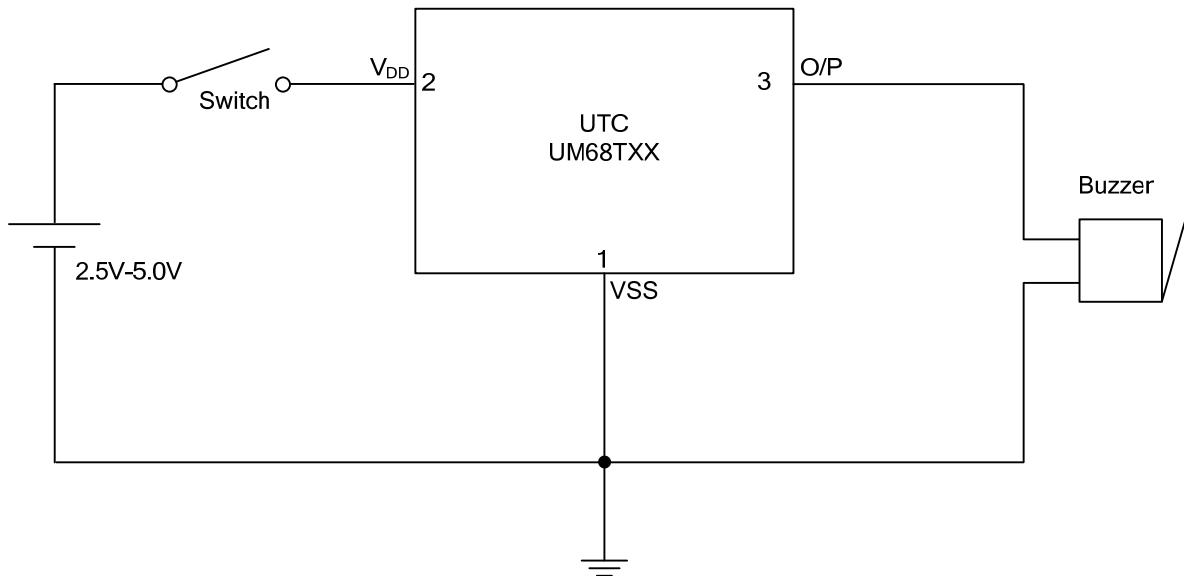
PARAMETER	SYMBOL	RATINGS	UNIT
DC Supply Voltage	$V_{CC}$	0V~5V	V
Input/output Voltage	$V_{IN}/V_{OUT}$	GND-0.2V~ $V_{DD}$ +0.2V	V
Junction Temperature	$T_J$	125	°C
Operating Temperature	$T_{OPR}$	-20~+85	°C
Storage Temperature	$T_{STG}$	-40~+150	°C

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.  
 Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ **ELECTRICAL CHARACTERISTICS** ( $V_{DD}=3.0V$ , GND=0V,  $T_A=25^\circ C$ , unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Operating Voltage	$V_{DD}$		2.5	3.0	5	V
Operating Current	$I_{DD}$			3	10	mA

## ■ TYPICAL APPLICATION CIRCUIT



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