FEATURES

- 127-note ROM memory
- 1.3V to 3.3V power supply and low power consumption
- RC oscillator on chip
- One shot or level hold mode (mask option)
- Sound range: 2.5 octaves, 2 series
- Tempo: 16 kinds (presto-largo)
- Double sound sources
- Digital Envelope Effect

FUNCTIONS

- Dynamic speaker can be driven with external NPN transistor
- Power on reset; melody begins from the first note
- Start from the head of melody
- Bare chip or TO-92 are available

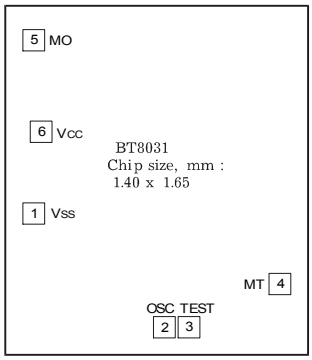
DESCRIPTION

The BT8031 is a CMOS LSI chip, which plays a prearranged melodies. The ROM has a 127 words and can store up to two melodies with double sound sources, and it uses the built-in digital envelope circuit.

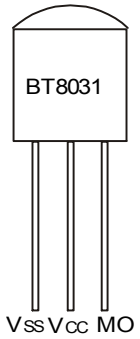
SONG LIST

02	Ding- Dong, Ding-Dong
01	For Elise
05	Its a small world
04	Ding-Dong

PIN CONFIGURATION



CHIP



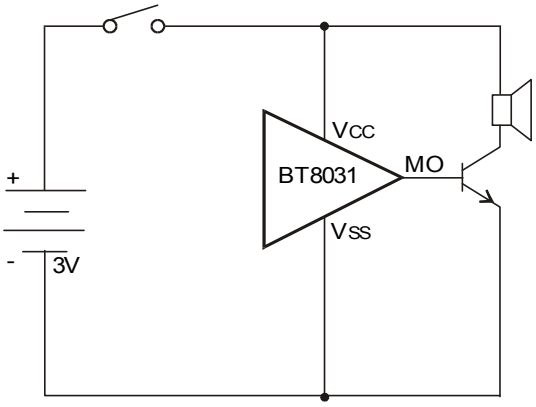
TO-92

ELECTRICAL CHARACTERISTICS (T_a = 25°C, V_{CC} = 1.5V, V_{SS} = 0V; unless otherwise specified)

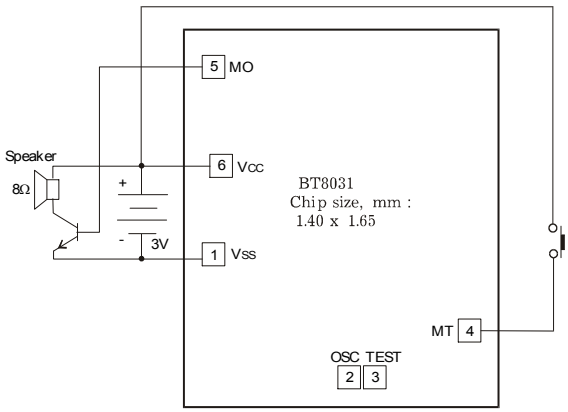
Characteristic		Symbol	Test Condition	Min	Typ	Max	Unit
Operating Voltage		V_{CC}		1.3	3.0	3.3	V
Supply Current	Stand-by	I_S			-	0.5	µA
	Operating	I_{CC}	Output open			1	mA
Output Drive Current		I_{OH}	V_{CC} =1.3V, V_O =0.8V	0.6	1.5		mA
Output Sink Current		I_{OL}	V_{CC} =1.3V, V_O =0.5V	0.6	1.5		mA
Frequency Stability		ΔF/F	F_{OSC}(1.6V) - F_{OSC}(1.3V)		-	12	%
			F_{OSC}(1.3V)				

APPLICATION CIRCUITS

LEVEL HOLD MODE (TO-92)



ONE SHOT MODE (BARE CHIP)



NOTE: The chip substrate is connected to V_{SS}.