

## M8031-2S : DING-DONG SOUND EFFECT GENERATOR IC

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### General Description

The M8031-2S is a ding-dong sound effect generator IC produced by LSI CMOS technology. With built-in RC oscillator and digital envelope circuits, minimal external components are required. This IC simulates the mechanical ding-dong sound, and is ideal for door bell application.

### Features

- 1.3V to 3.3V operating voltage and low power consumption
- One-shot mode of 2 ding-dong playing sequences
- Standard TO-92 package form
- Dynamic speaker can be driven with external NPN transistor

### Absolute Maximum Ratings

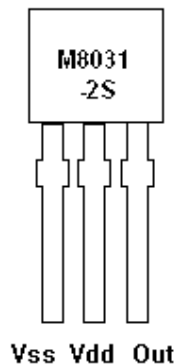
DC Supply Voltage ..... -0.3V to +5.0V  
Operating Ambient Temperature ..... -10°C to 60°C  
Storage Temperature ..... -55°C to 125°C

### Electrical Characteristics

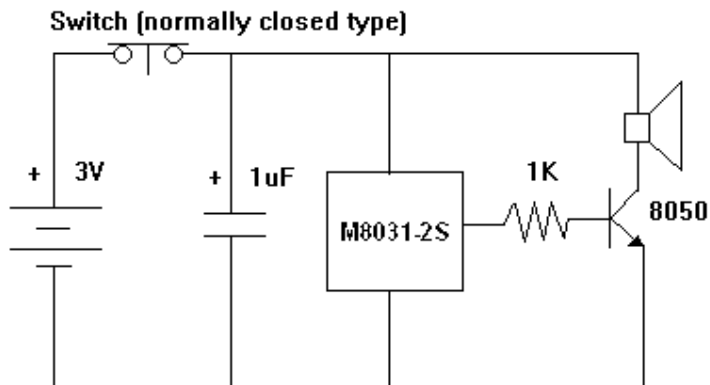
(V<sub>ss</sub>=0V, V<sub>dd</sub>=1.5V, T<sub>a</sub>=25°C, unless otherwise specified.)

Parameter	Symbol	Min.	Typ.	Max.	Conditions
Operating voltage	V <sub>dd</sub>	1.3V	1.5V	3.3V	
Stand-by current	I <sub>s</sub>	-	-	0.5μA	All terminal open
Operating current	I <sub>dd</sub>	-	0.5mA	1mA	
Osc. frequency	F <sub>ocs</sub>	102kHz	120kHz	144kHz	

### Pin assignment of TO-92 package form

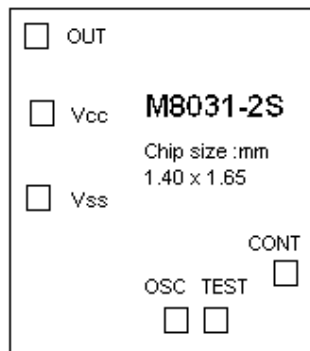


### Application Circuit



### Bonding Pads Diagram

IC chip substrate is connected to Vss.



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