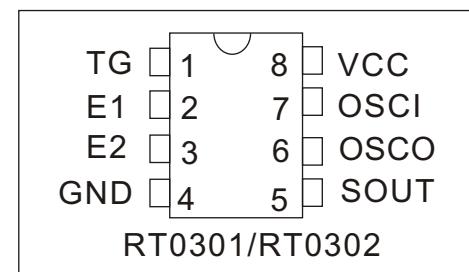


The RT0301/RT0302 is a CMOS Design for Door Bell application

## Features

Low Operator Voltage 3V ~ 4.5V  
Auto Power down function  
CMOS process  
On-Chip RC oscillator  
Low stand by current at 1 uA  
8-Pin DIP or chip form available

## Pin Diagram



## Pin Description

Symbol	Pin Description	Pin	I / O
TG	Trigger Single Input	1	I
E1	"Ding" Freq	2	O
E2	"Dong" Freq	3	I
GND	Ground	4	O
SOUT	Sound output	5	O
OSCO	Frequency put	6	O
OSCI	Frequency In	7	I
Vcc	Power Source Input	8	I

## Electrical Characteristics

Vcc=3V , Temp.=25°C

Characteristics	Symbol	Min.	Typ.	Max.	Unit	Remarks
Operating Voltage	Vcc	-	3	4.5	V	
Operating Current	Iop	-	0.1	0.5	mA	No Load
Quiescent Current	Isb	-	1	5	uA	
SOUT Driving Current	loc	1	-	-	mA	@VDS=1V
Oscillator Freq	Fop	-	50	-	KHz	External ±30%, ROSC=430K
Operating Temp	Temp	0	25	70	°C	

P/N            TIMES

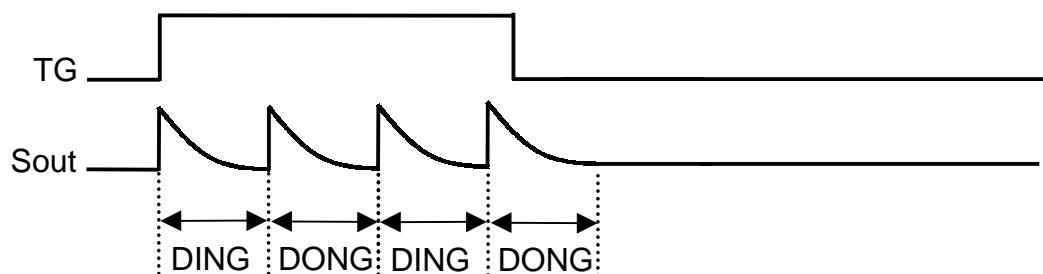
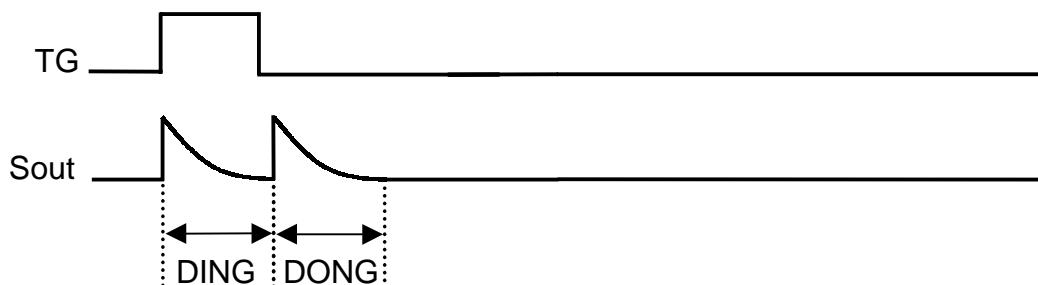
RT0301            1

RT0302            2

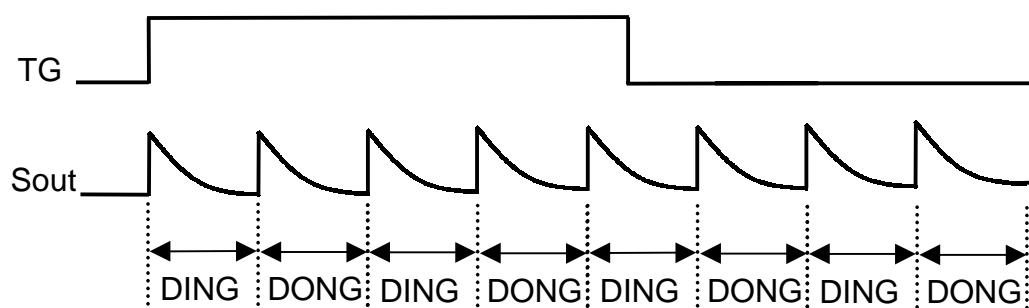
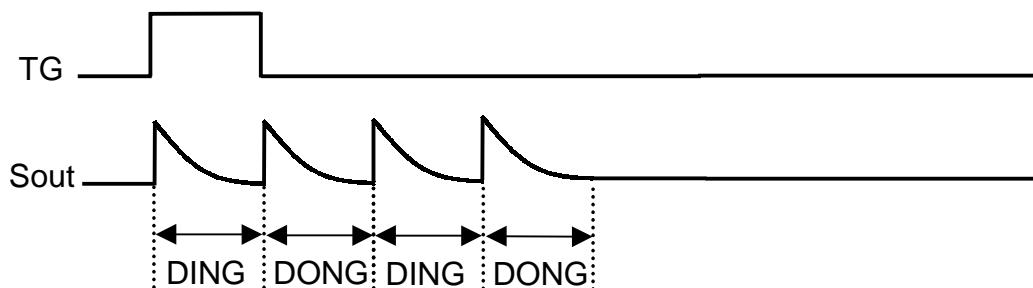
## **\*\* Function Description:**

When TG PIN's signal changed from low to high, the RT0301/RT0302 will present Ding-Dong sound from Sout PIN. The waveform will be listed below :

- RT0301:



- RT0302:

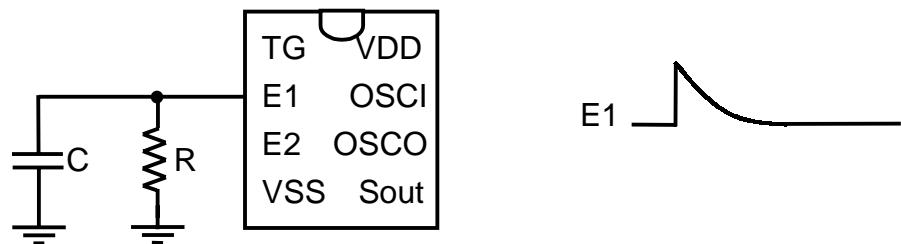


**\*\* Envelope waveform:**

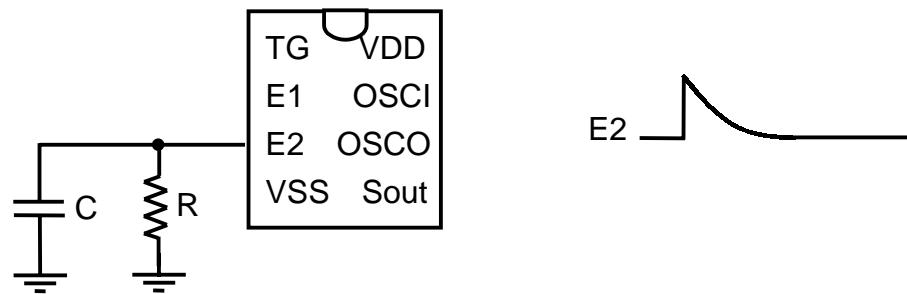
The envelope waveform of DING is controlled by E1's R.C. circuit.

The envelope waveform of DONG is controlled by E2's R.C. circuit.

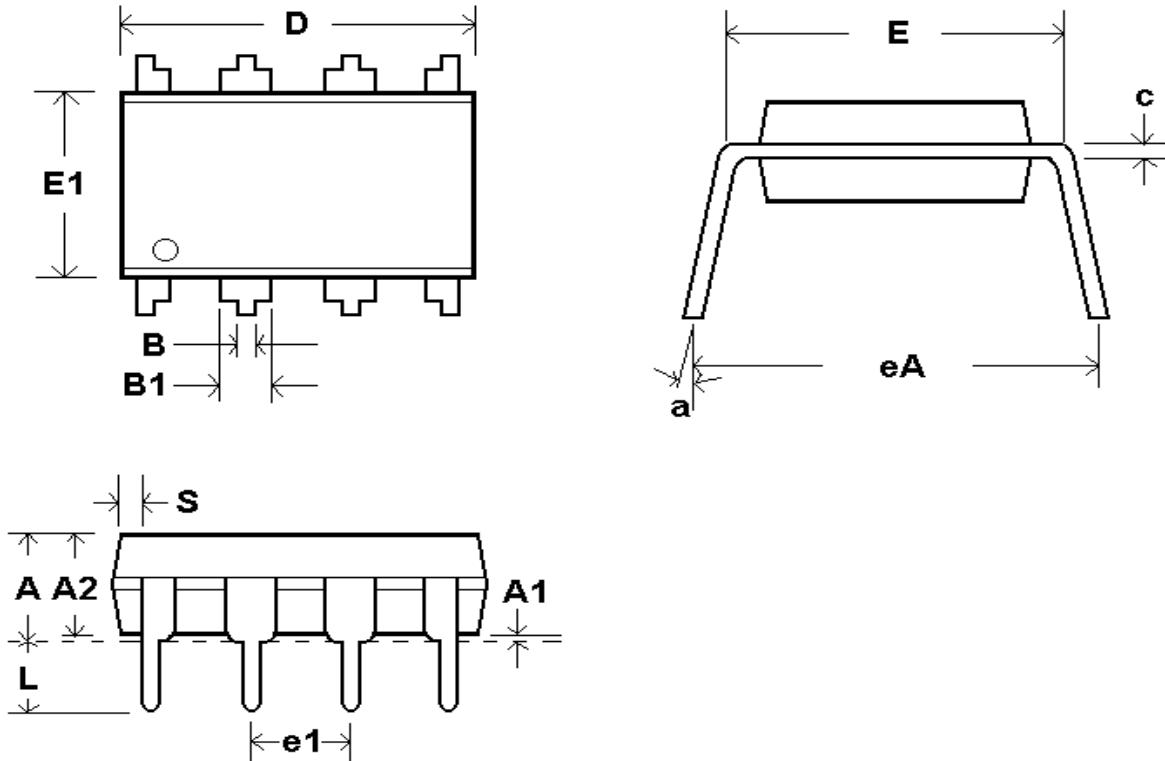
DING:



DONG:



## 8L P-DIP (300 mil ) Dimension:



Symbol	Dimension in inch			Dimension in mm		
	Min	Typ	Max	Min	Typ	Max
A	-	-	<b>0.210</b>	-	-	<b>5.33</b>
A1	<b>0.010</b>	-	-	<b>0.25</b>	-	-
A2	<b>0.124</b>	<b>0.130</b>	<b>0.136</b>	<b>3.15</b>	<b>3.30</b>	<b>3.45</b>
B	<b>0.013</b>	<b>0.018</b>	<b>0.023</b>	<b>0.33</b>	<b>0.46</b>	<b>0.58</b>
B1	<b>0.045</b>	<b>0.060</b>	<b>0.075</b>	<b>1.14</b>	<b>1.52</b>	<b>1.91</b>
c	<b>0.005</b>	<b>0.010</b>	<b>0.015</b>	<b>0.13</b>	<b>0.25</b>	<b>0.38</b>
D	<b>0.340</b>	<b>0.360</b>	<b>0.380</b>	<b>8.64</b>	<b>9.14</b>	<b>9.65</b>
E	<b>0.275</b>	<b>0.300</b>	<b>0.325</b>	<b>6.99</b>	<b>7.62</b>	<b>8.26</b>
E1	<b>0.240</b>	<b>0.250</b>	<b>0.260</b>	<b>6.10</b>	<b>6.35</b>	<b>6.60</b>
e1	<b>0.090</b>	<b>0.100</b>	<b>0.110</b>	<b>2.29</b>	<b>2.54</b>	<b>2.79</b>
L	<b>0.120</b>	<b>0.130</b>	<b>0.140</b>	<b>3.05</b>	<b>3.30</b>	<b>3.56</b>
a	<b>0</b>	-	<b>15</b>	<b>0</b>	-	<b>15</b>
eA	<b>0.330</b>	<b>0.355</b>	<b>0.380</b>	<b>8.38</b>	<b>9.02</b>	<b>9.65</b>
S	<b>0.015</b>	<b>0.030</b>	<b>0.045</b>	<b>0.38</b>	<b>0.76</b>	<b>1.44</b>

NOTE: 1. Controlling dimension : Inch

2. General appearance spec. should be based on final visual inspection spec.