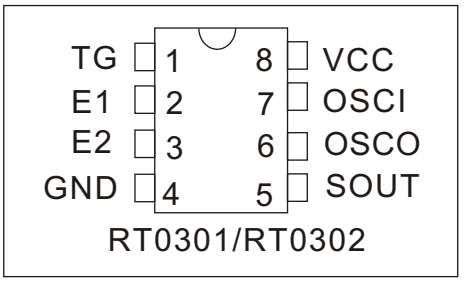
The RT0301/RT0302 is a CMOS Design for Door Bell application

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℃

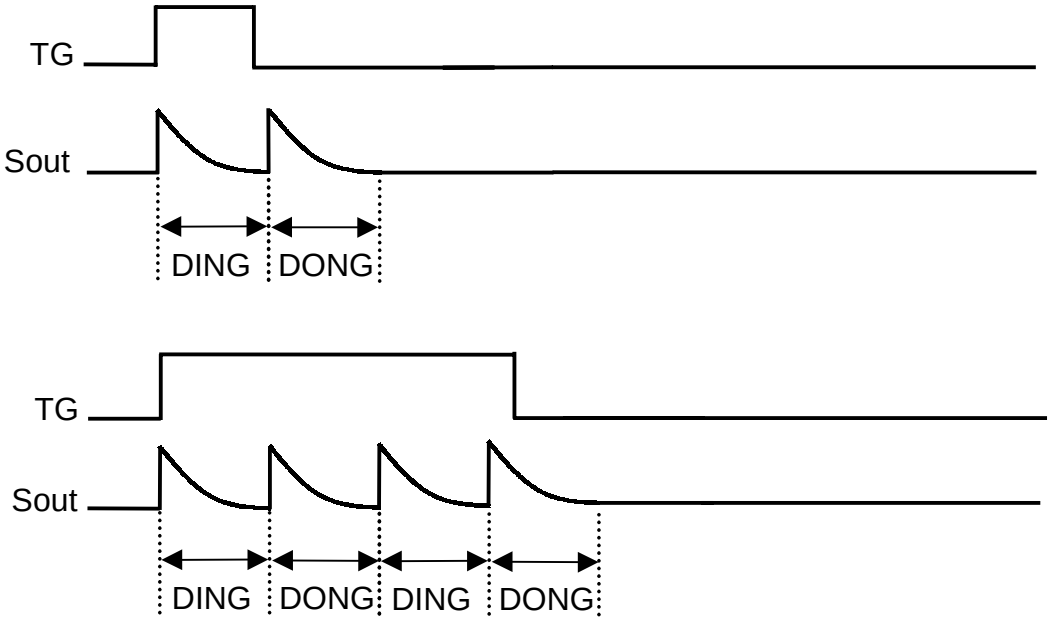
Characteristics	Symbol	Min.	Typ.	Max.	Unit	Remarks
Operating Voltage	Vcc	-	3	4.5	V	
Operating Current	Iop	-	0.1	0.5	mA	No Load
Quiescent Current	Isb	-	1	5	uA	
SOUT Driving Current	Ioc	1	-	-	mA	@V_{DS}=1V
Oscillator Freq	Fop	-	50	-	KHz	External ±30%, R_{OSC}=430K
Operating Temp	Temp	0	25	70	℃	

P/N	TIMES
RT0301	1
RT0302	2

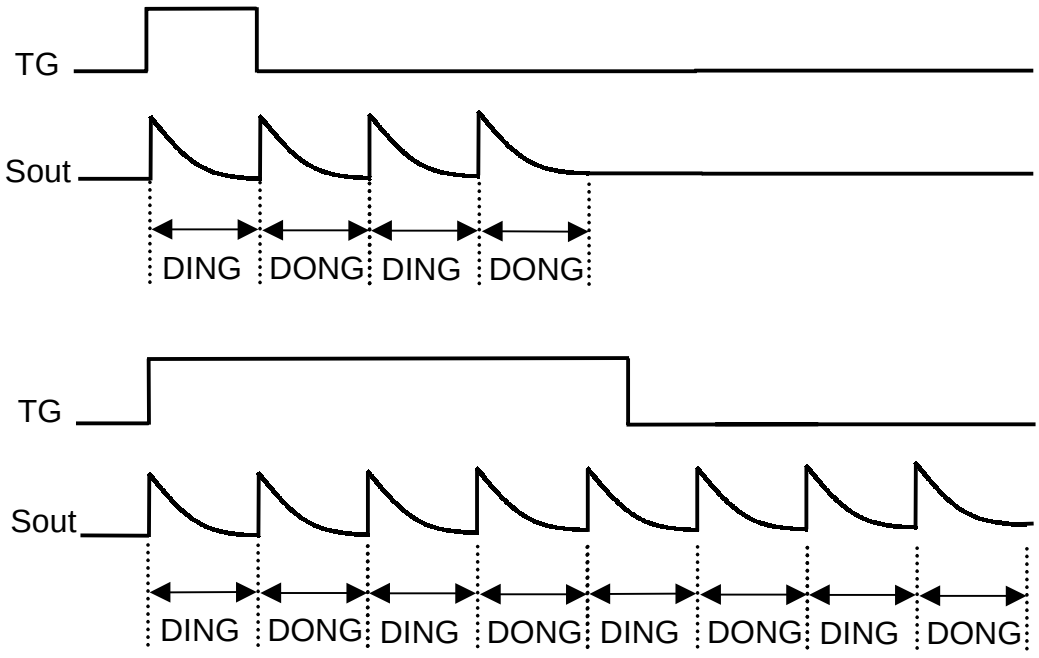
** Function Description:

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:

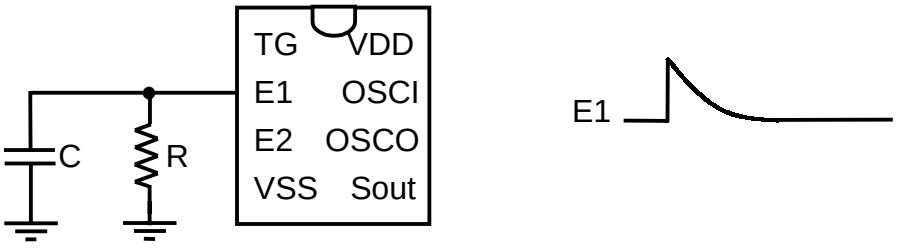


** Envelope waveform:

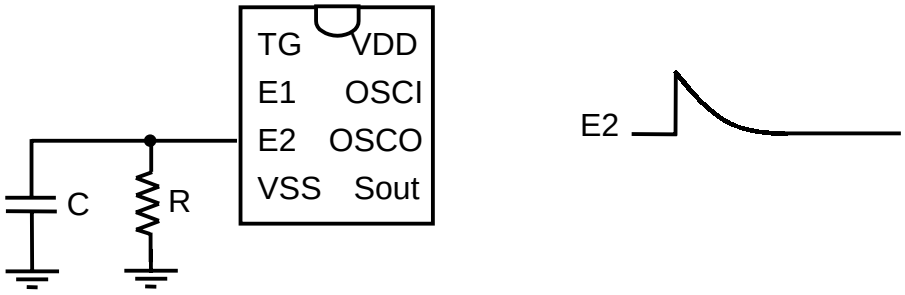
The envelope waveform of DING is controlled by E1's R.C. circuit.

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

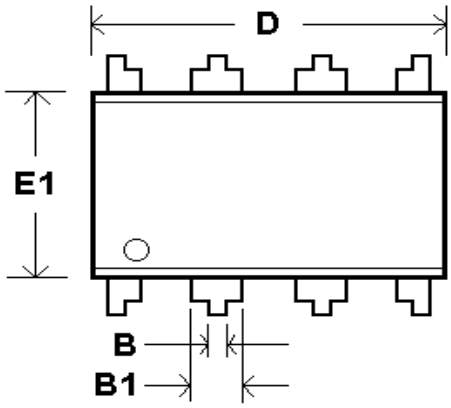
DING:

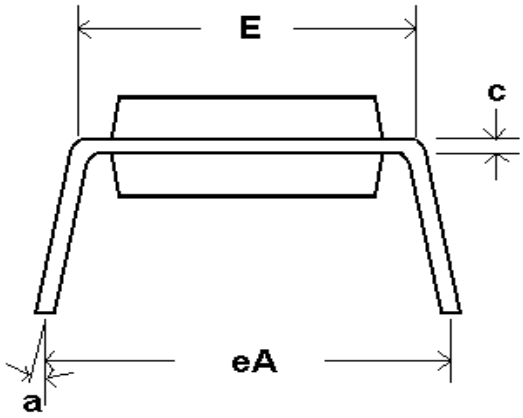


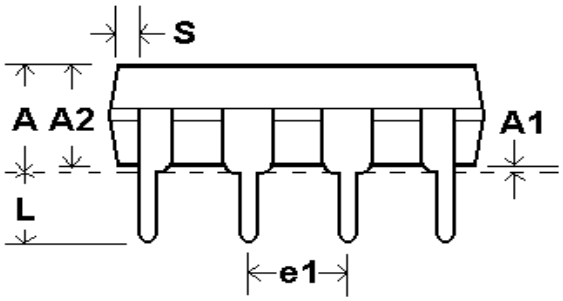
DONG:



8L P-DIP (300 mil) Dimension:







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

NOTE: 1. Controlling dimension : Inch

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