

BT66T

SIMPLE MELODY GENERATOR

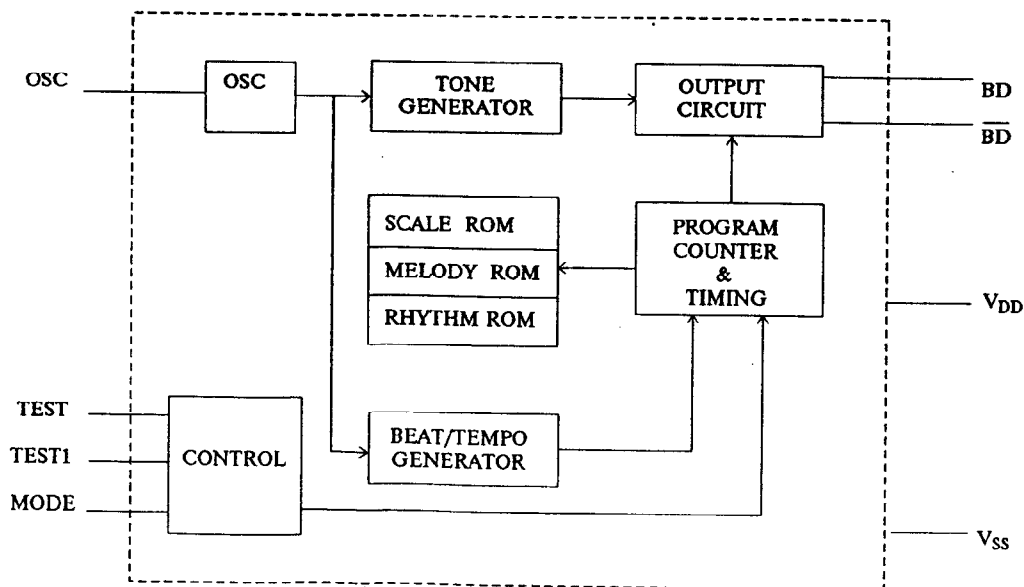
FEATURES

- * One shot or level hold mode
- * Plays a melody consisting of 64 note
- * RC oscillator on chip
- * 64-note ROM memory
- * Sound range : 2 octaves
- * Tempo : 15 kinds (presto-largo)
- * Direct piezo drive
- * Solution of automatic stop or repeat of the melody
- * Dynamic speaker can be driven with external NPN transistor
- * Power on reset : melody begins from the first note
- * TO-92 or bare chip available
- * Changing the contents of melody is possible ROM
- * Start from the head of melody

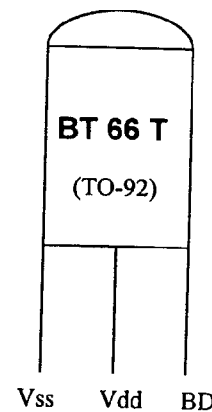
DESCRIPTION

The BT 8027 series is a CMOS LSI chip which electronically plays 2 prearranged melody.

BLOCK DIAGRAM



PIN CONFIGURATION



AVAILABLE SONG LIST

- BT66T-19L** : For Elise
- BT66T-02L** : Jingle Bell
- BT66T-08L** : Happy Birthday
- BT66T-12L** : Love Story
- BT66T-68L** : It's a Small World

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FORMOX SEMICONDUCTOR

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ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	VALUE	UNIT
DC SUPPLY VOLTAGE	V _{DD} - V _{SS}	-0.3 ~ 3.5	V
INPUT VOLTAGE	V _{IN}	V _{SS} - 0.3 - V _{DD} - 0.3	V
OPERATING TEMPERATURE	T _{opr}	- 20 ~ + 65	°C
STORAGE TEMPERATURE	T _{stg}	- 55 ~ + 125	°C

ELECTRICAL CHARACTERISTIC (Ta = 25°C, V_{DD} = 1.5V, unless otherwise specified)

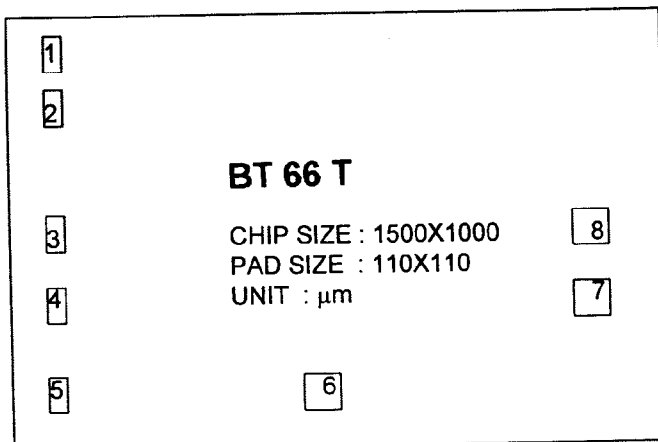
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
OPERATING VOLTAGE	V _{DD}		1.3	1.3	3.3	V
SUPPLY CURRENT STAND-BY	I _S				1	μA
OPERATING	I _D	BD, BD OPEN			60	V
INPUT VOLTAGE HIGH	V _{IH}		V _{DD} -0.2V		V _{DD}	V
INPUT VOLTAGE LOW	V _{IL}		V _{SS}		V _{SS} +0.2V	mA
INPUT CURRENT MODE	I _I	V _{DD} =3.3V, V _{MODE} =0-3.3V	-30		50	mA
BD (BD) DRIVE CURRENT	I _{BD} (I _{BD})	V _{DD} =1.3V, V _{BD} =0.3V	0.6	1.5		mA
BD (BD) SINK CURRENT	I _{BS} (I _{BS})	V _{DD} =1.3V, V _{BD} =0.3V	0.6	1.5		mA
FREQUENCY OPERATING	F _{OSC}	V _{DD} = 1.5V	57	65	82	KHZ
FREQUENCY STABILITY	ΔF/F	F _{osc} (1.6V) - F _{osc} (1.3V) F _{osc} (1.3V)			+12	%

PAD LOCATION

Pad No	Pad Name	X	Y
1	MODE	145	1455
2	BD	145	1285
3	BD	145	785
4	TEST	145	535
5	TEST1	145	145
6	VSS	1005	145
7	OSC	1455	510
8	VDD	1455	680

PAD LAYOUT

(1500,1500)



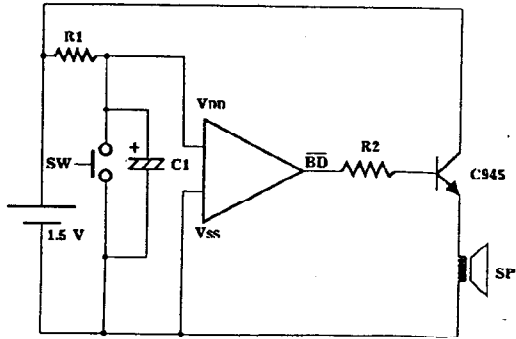
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APPLICATION CIRCUIT

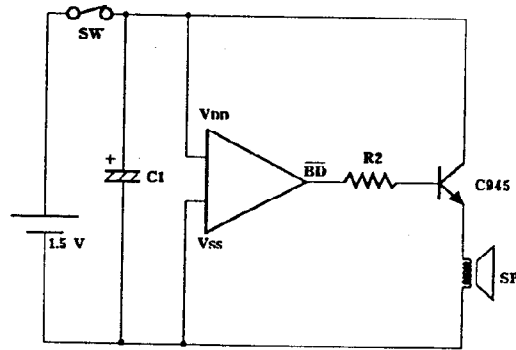
For Speaker Type

1) One Shot Mode



R1: 220 Ω
R2: 2.7 - 4.7K Ω
C1: 1 μ F

2) Level Hold Mode



R2: 2.7 - 4.7K Ω
C1: 1 μ F