

### ◆ Features

- \* Full and pure natural harmonic sound effect , maximum at 1024 musical notations
- \* Built in audio amplifier , do not need transistor on output for sound amplifier
- \* Built in LED flash circuit , flash speed follows sound output of melody tempo
- \* Built in alone motor driver signal output ( MD pin ) , not be effect to sound quality during motor is derived
- \* 5 kinds different trigger mode by MODE & SL pins :
  - Power on/off control mode
  - One shot re-trigger mode
  - One shot non re-trigger mode
  - On/off switch mode ( TG pin control sound on or off )
  - Single touch plays all songs mode ( one touch TG pin playing all tunes )

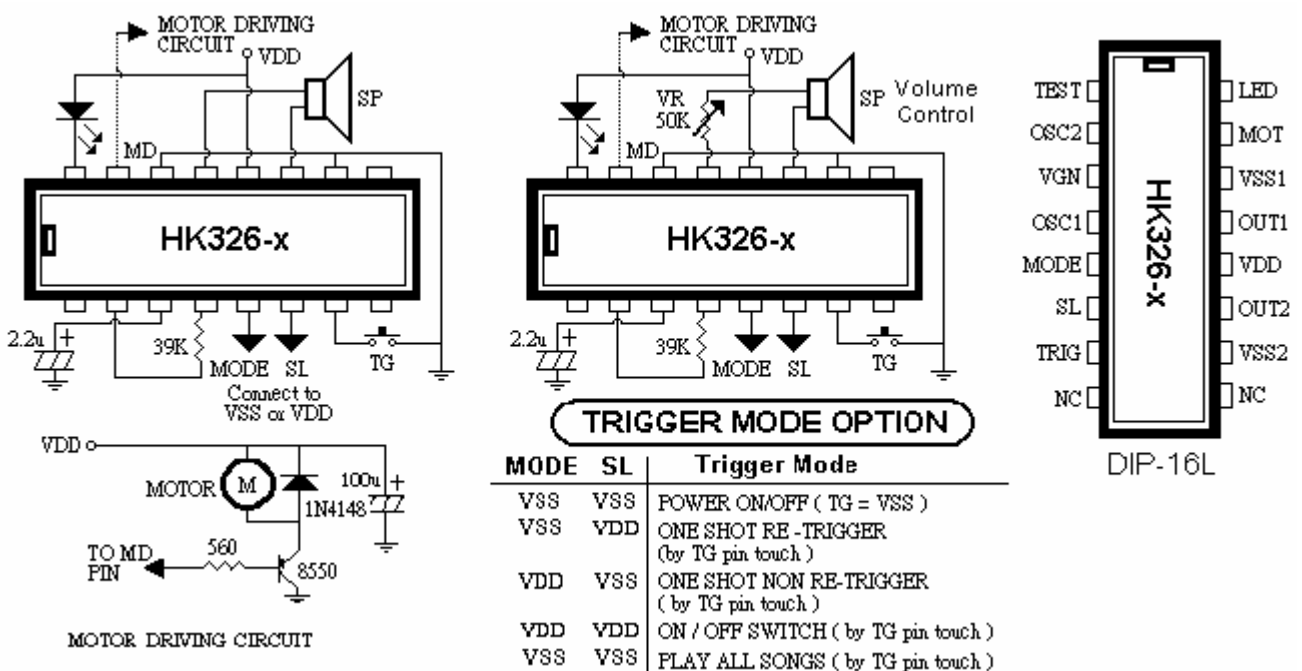
### ◆ Application

Toys, Clock melody, Key chain, Musical box

### ◆ Electrical Characteristics

Characteristics	Sym.	Min.	Typ.	Max.	Unit	Remark
Operating voltage	V <sub>DD</sub>	1.8	3.0	5.2	V	
Operating current	I <sub>OP</sub>	----	0.1	0.5	mA	
Stand by current	I <sub>SB</sub>	----	0.4	1	uA	
Oscillator frequency	F <sub>OSC</sub>	----	500	----	KHz	±30% R <sub>osc</sub> = 39KΩ
Operating temperature	T <sub>EMP</sub>	0	25	60	°C	
Driving current	I <sub>O</sub>	----	18	----	mA	@ V <sub>DS</sub> =1V

### ◆ Application circuit

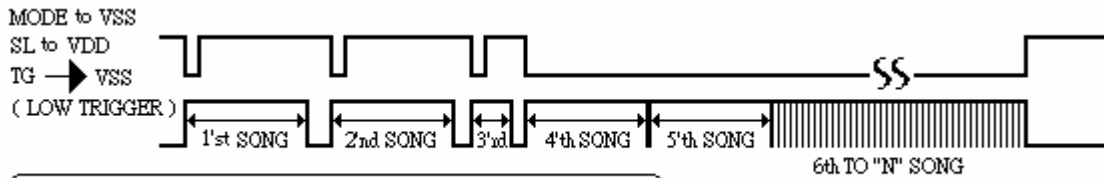


★ Package Type : DIP-16L

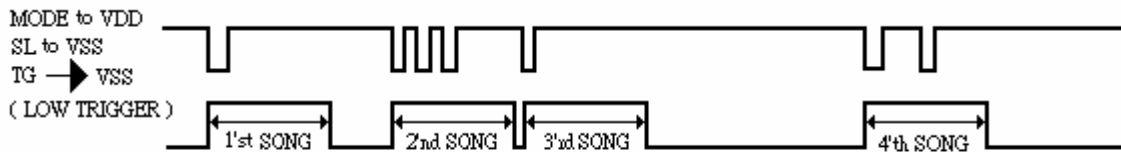
### ★ Trigger Mode and Timing Chart :



**TRIGGER MODE : POWER ON/OFF CONTROL**



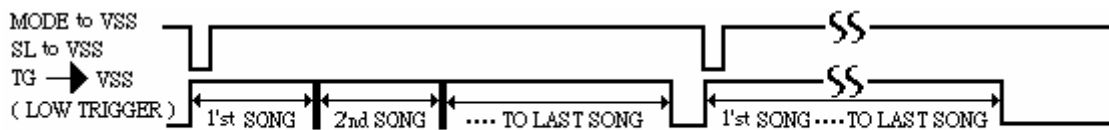
**TRIGGER MODE : ONE SHOT RE-TRIGGER**



**TRIGGER MODE : ONE SHOT NON RE-TRIGGER**



**TRIGGER MODE : ON/OFF SWITCH**



**TRIGGER MODE : ONE TOUCH PLAY ALL SONGS**

## ◆ Song list

### HK326-1:

1. JINGLE BELLS
2. O COME, ALL YE FAITHFUL
3. O CHRISTMAS TREE
4. ANGELS WE HAVE HEARD ON HIGH
5. O LITTLE TOWN OF BETHLEHEM
6. THE TWELVE DAYS OF CHRISTMAS
7. HARK! THE HERALD ANGELS SING
8. SILENT NIGHT
9. DECK THE HALLS
10. THE FIRST NOEL
11. JOY TO THE WORLD
12. WE WISH YOU A MERRY CHRISTMAS

### HK326-6:

1. THE FARMER IN THE DELL
2. YANKEE DOODLE
3. MY BONNIE LIES OVER THE OCEAN
4. DOWN THE MOUNTAIN SIDE WE GO
5. HOME ON THE RANGE
6. HUSH LITTLE BABY
7. BATTLE HYMN
8. OH! MY DARLING
9. SKIP TO MY LOU
10. SWANCE RIVER
11. DID YOU EVER SEE A LASSIE
12. CAMPTOWN RACE

### HK326-2:

1. JINGLE BELLS
2. SILENT NIGHT
3. WE WISH YOU A MERRY CHRISTMAS
4. SANTA CLAUS IS COMING TO TOWN
5. HARK! THE HERALD ANGELS SING
6. ANGELS WE HAVE HEARD ON HIGH
7. JOY TO THE WORLD
8. O CHRISTMAS TREE
9. THE FIRST NOEL
10. DECK THE HALLS
11. RUDOLPH THE RED NOSE REINDEER
12. O COME, ALL YE FAITHFUL
13. FROSTY THE SNOWMAN
14. WHITE CHRISTMAS
15. THE LITTLE DRUMMER BOY
16. THE TWELVE DAYS OF CHRISTMAS
17. O LITTLE TOWN OF BETHLEHEM
18. HERE COMES SANTA CLAUS
19. WE THREE KINGS
20. SILVER BELL
21. WINTER WONDER LAND
22. I SAW THE THREE SHIPS
23. IT CAME UPON THE MIDNIGHT CLEAR
24. I HEARD THE BELLS ON X'MAS DAY
25. GOD REST HE MERRY GENTLEMEN