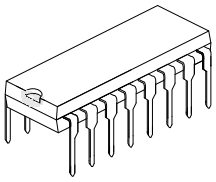
1668 **CMOS IC**

DUAL TONE MELODY XMAS LIGHT CONTROL



DIP-16

■ FEATURES

* 5 SCR outputs
* 2 Mode sequence trigger key
* Mode 0: 7 function Vol pin control volume
* Mode 1: 8 function Auto Volume control
*OPT “Floation” Mode 0
“VSS” Mode 1

■ APPLICATION

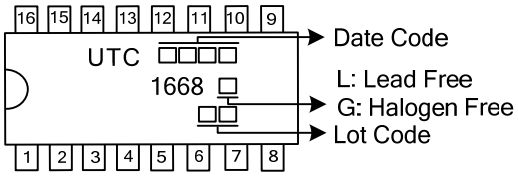
* Xmas light control etc

■ ORDERING INFORMATION

Ordering Number		Package	Packing
Lead Free	Halogen Free		
1668L-D16-T	1668G-D16-T	DIP-16	Tube

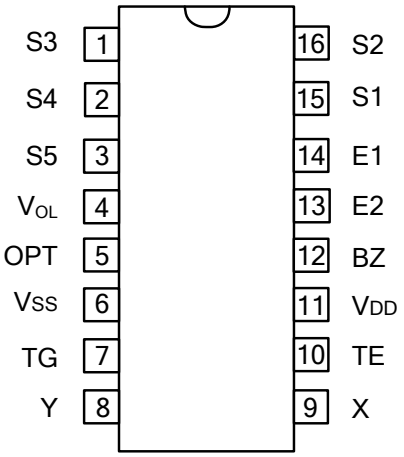
1668G-D16-T (1)Packing Type (2)Package Type (3)Green Package	(1) T: Tube (2) D16: DIP-16 (3) G: Halogen Free and Lead Free, L: Lead Free

■ MARKING



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■ PIN CONFIGURATION



■ PIN DESCRIPTIONS

Pin No	Symbol	Function
1	S3	LED3 output.
2	S4	LED4 output.
3	S5	LED5 output.
4	V_{OL}	Volume control active in mode0.
5	OPT	Mode option.
6	V_{SS}	Ground.
7	TG	Music switching.
8	Y	OSC resistor out.
9	X	OSC resistor in.
10	TE	For test
11	V_{DD}	Power
12	BZ	Music output.
13	E2	Tone quality processing.
14	E1	Tone quality processing.
15	S1	LED1 output.
16	S2	LED2 output.

■ ELECTRICAL CHARACTERISTICS (V_{DD}=4.3V, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP	MAX	UNIT
Operating Voltage	V_{DD}			4.3	5	V
Operating Current	I_{OP}	No load			2	mA
BZ Driving Current	I_{OH}	V_{DS}=1V		0.2		mA
Oscillator Frequency	F_{OSC}	External 30%, R_{OSC}=270K		100		KHz
Operating Temperature	T_{OPR}		0	25	60	°C

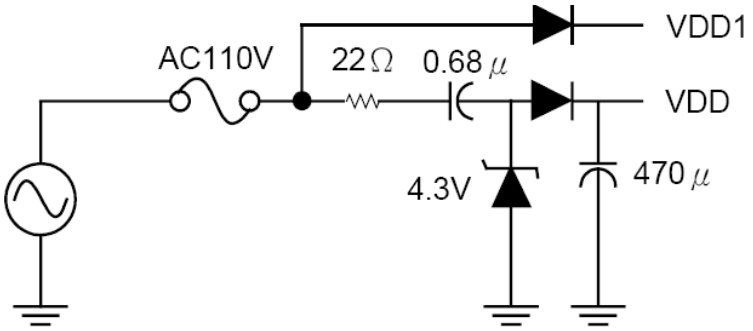
■ MODE FORMAT

MODE	MODE 0	MODE 1	
	LIGHT	LIGHT	VOLUME
M1	Inphase	Inphase	Max.
M2	Mode Sequential	2 Mode Sequential	Middle
M3	Lamp Flash	1 Lamp Flash	Min.
M4	Lamp Chasing	Rotary	Max.
M5	M1 M4 Rotary	Inphase + 2 Lamp Chasing	Middle
M6	M1 M4 Rotary	2 Mode Sequential + 1 Lamp Flash	Min.
M7	Steady on	Rotary	Mute
M8		Steady on	

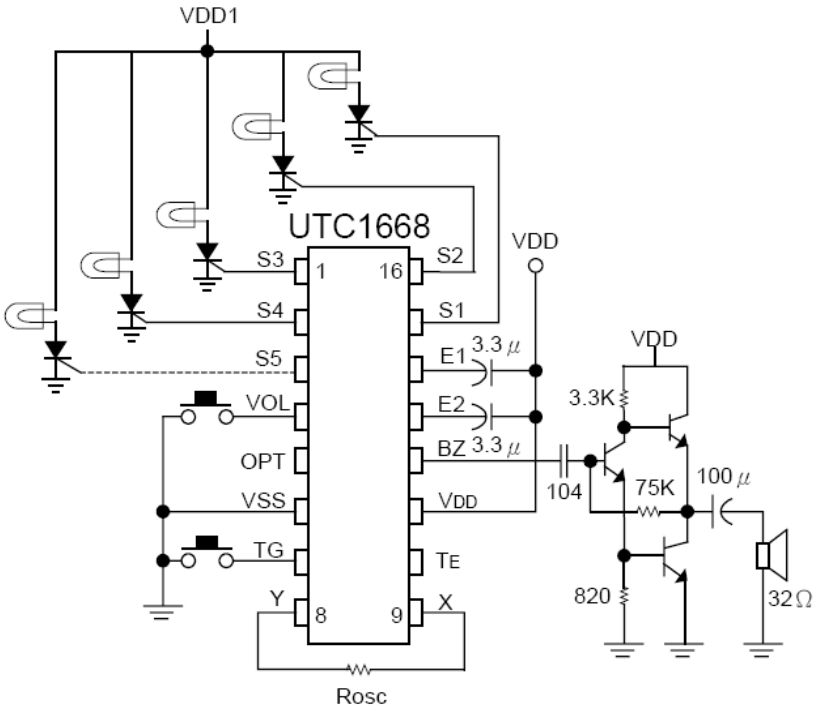
■ SONG LIST

No.	SONG NAME	No.	SONG NAME
1	Angels we have heard on high	14	Santa Claus coming to down
2	Silent night	15	O Christmas tree
3	Away in a manger	16	Rudolph,the red-nosed reindeer
4	We three king of orient are	17	What child is this
5	Jingle balls	18	I saw three ships
6	We wish you a merry Christmas	19	O litter town of Bethlehem
7	The twelve days of Christmas	20	God rest you merry,gentlemen hark
8	Up on the housetop	21	Deck the halls
9	Jolly old saint nickel	22	The hearld angels sing
10	Good king wencelas	23	The snow lay on the ground
11	O come ,all ye faithful	24	Bring a torch
12	Joy to the world	25	The first noel
13	It came upon the midnight clear		

■ APPLICATION CIRCUIT



■ APPLICATION DIAGRAM



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