



1618

CMOS IC

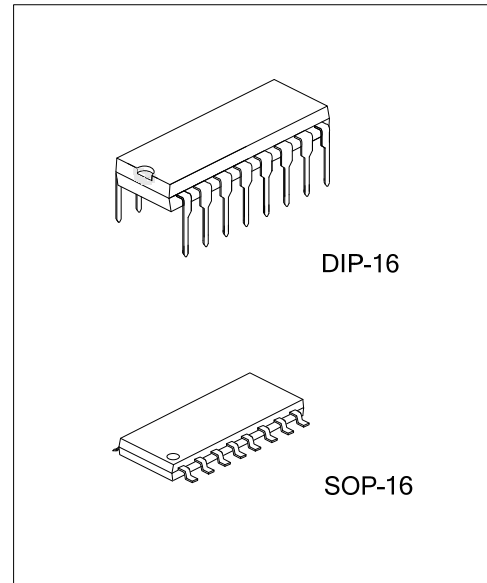
6 KEYS SIREN/ALARM SOUND GENERATOR

DESCRIPTION

The UTC **1618** is a CMOS design for 6 different alarm sounds application. According to the priority of the select keys, the sound of UTC **1618** will be generated in cycling sequence.

FEATURES

- * Auto power off function, reduce power consumption.
- * Low operating voltage: 2V ~ 5V.
- * On-chip RC oscillator.
- * 6 different sounds.
- * 6 prioritized keys for selecting 6 different sounds.
- * Low stand by current.
- * CMOS process.



ORDERING INFORMATION

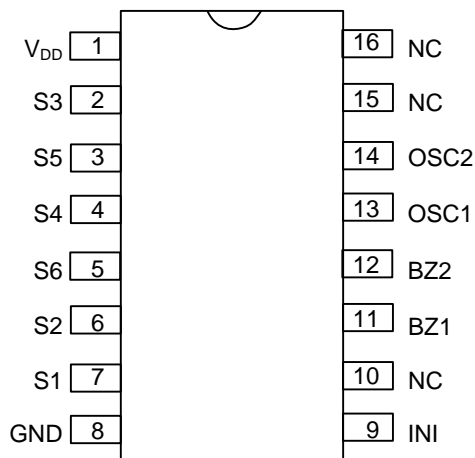
Ordering Number		Package	Packing
Lead Free	Halogen Free		
1618L-D16-T	1618G-D16-T	DIP-16	Tube
-	1618G-S16-R	SOP-16	Tape Reel

<p>1618L-D16-T</p> <p>(1) Packing Type</p> <p>(2) Package Type</p> <p>(3) Green Package</p>	<p>(1) T: Tube, R: Tape Reel</p> <p>(2) D16: DIP-16, S16: SOP-16</p> <p>(3) L: Lead Free, G: Halogen Free and Lead Free</p>
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MARKING

DIP-16	SOP-16
<p>16 15 14 13 12 11 10 9</p> <p>UTC □□□□ → Date Code</p> <p>1618 □ → L: Lead Free</p> <p>□□ → G: Halogen Free</p> <p>□□ → Lot Code</p> <p>1 2 3 4 5 6 7 8</p>	<p>16 15 14 13 12 11 10 9</p> <p>UTC □□□□ → Date Code</p> <p>1618G □□ → Lot Code</p> <p>1 2 3 4 5 6 7 8</p>

■ PIN CONFIGURATION



■ PIN DESCRIPTIONS

PIN No.	PIN NAME	I/O	DESCRIPTION
1	V _{DD}	-	Power supply pin (+).
2	S3	I	Sound selection keys. These keys connect with internal pull-down resistors. The sound output will be enabled when a key is connected to V _{DD} . On other hands, the sound output will be disabled if a key is N.C. or connected to GND.
3	S5	I	
4	S4	I	
5	S6	I	
6	S2	I	When two or more keys are selected in the same time, the sound will be generated in cycling sequence. According to the priority of the keys, the priority of S1~S6 list below : S1>S2>S6>S4>S5>S3.
7	S1	I	
8	GND	-	Power supply pin (-).
9	INI	I	An internal pull-up resistor. Might disable BZ1, BZ2, when connected to GND.
10	NC	-	No connecting.
11	BZ1	O	Audio output pins.
12	BZ2	O	
13	OSC1	O	Oscillator pin with external resistor.
14	OSC2	I	
15	NC	-	No connecting.
16	NC	O	No connecting.

■ ABSOLUTE MAXIMUM RATING ($T_A=25^{\circ}\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V_{DD}	-0.3 ~ 6	V
Input Voltage	V_{IN}	-0.3 ~ $V_{DD}+0.3$	V
Output Voltage	V_{OUT}	-0.3 ~ $V_{DD}+0.3$	V
Operating Temperature	T_{OPR}	0 ~ 65	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-40 ~ 125	$^{\circ}\text{C}$

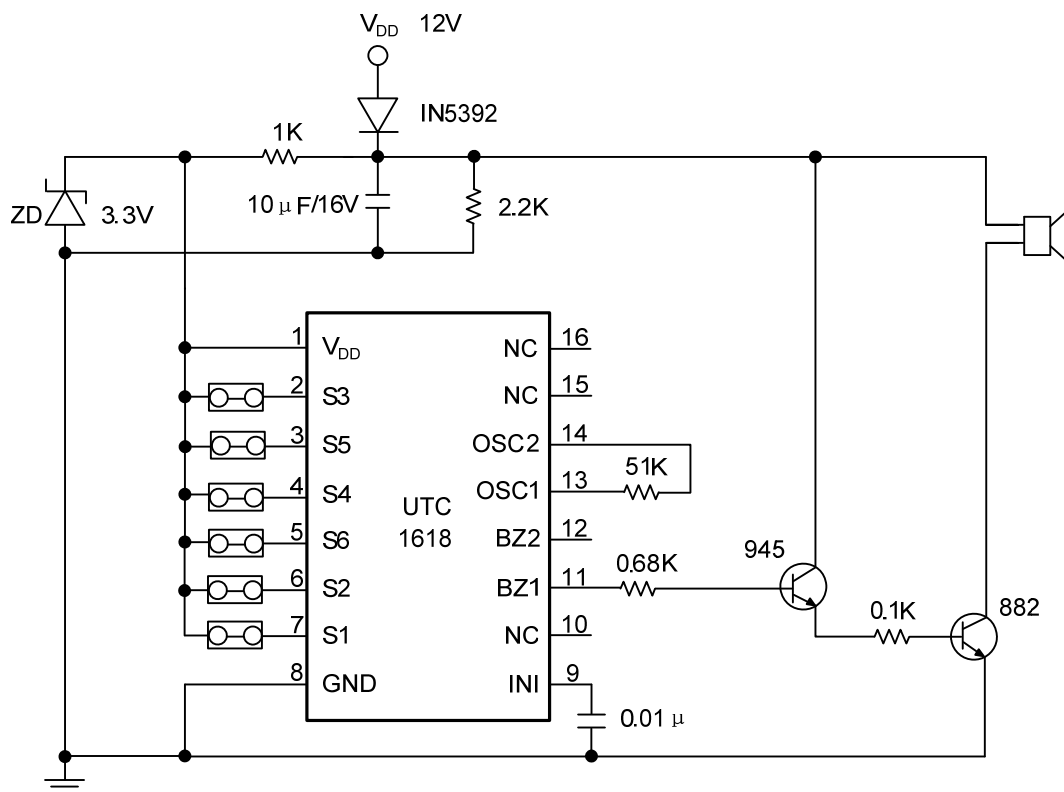
Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS ($V_{DD}=3\text{V}$, $T_A=25^{\circ}\text{C}$, unless otherwise specified)

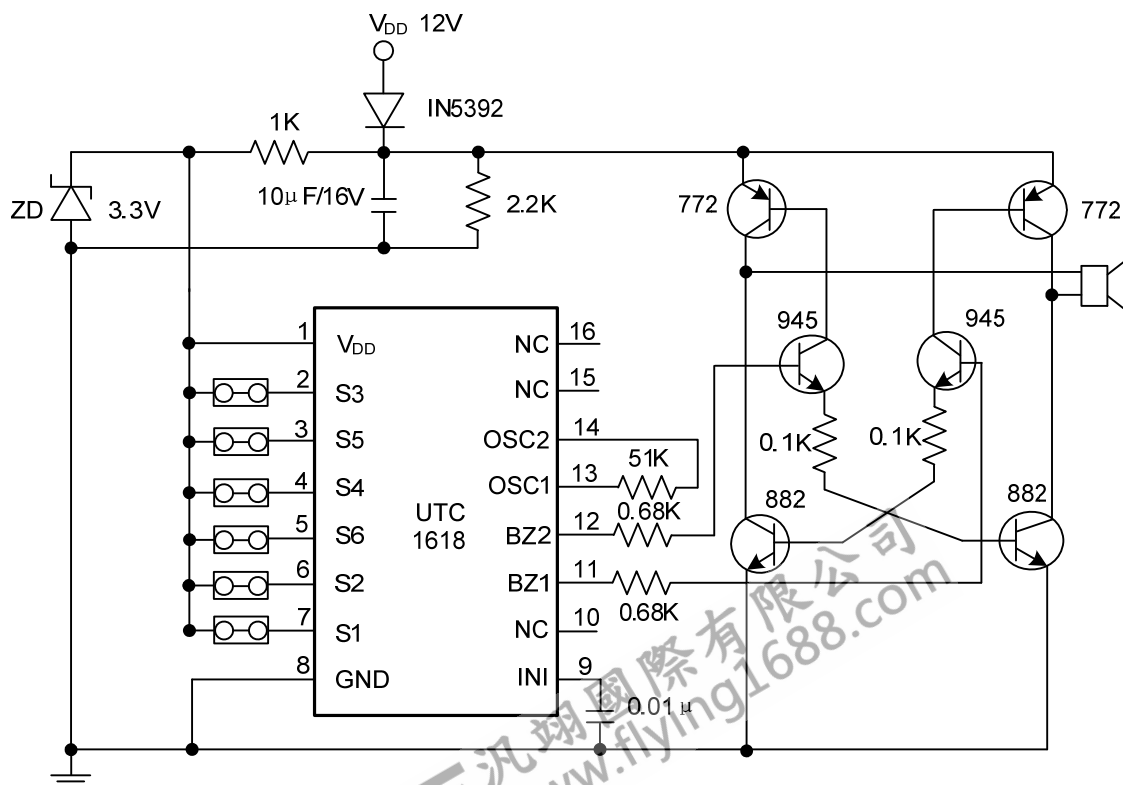
PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT
Operating Voltage	V_{DD}	2	3	5	V
BZ1, BZ2 Driving Current	I_{OH}	1			mA
	I_{OL}	1			mA
Stand-By Current	I_{SB}		10	20	μA
Operating Current	I_{OP}		300	500	μA
Operating Frequency	F_{OP}	70	80	128	KHz

■ APPLICATION CIRCUIT

(I)



(II)



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