



1618

CMOS IC

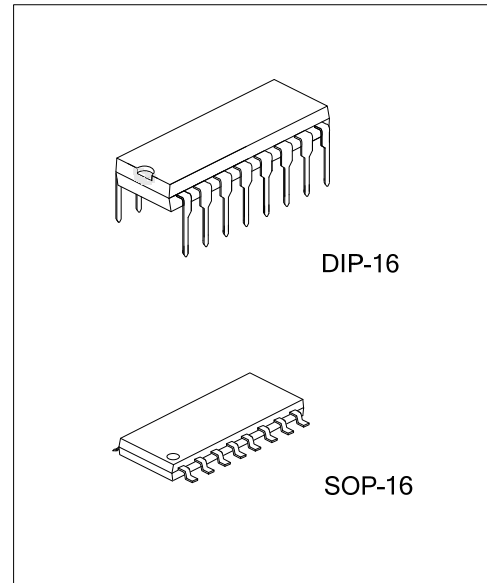
6 KEYS SIREN/ALARM SOUND GENERATOR

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

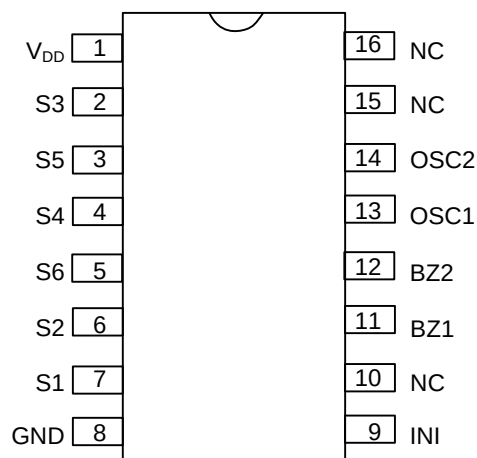
Ordering Number		Package	Packing
Lead Free	Halogen Free		
1618L-D16-T	1618G-D16-T	DIP-16	Tube
-	1618G-S16-R	SOP-16	Tape Reel

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

MARKING

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

■ 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	$^{\circ}\text{C}$

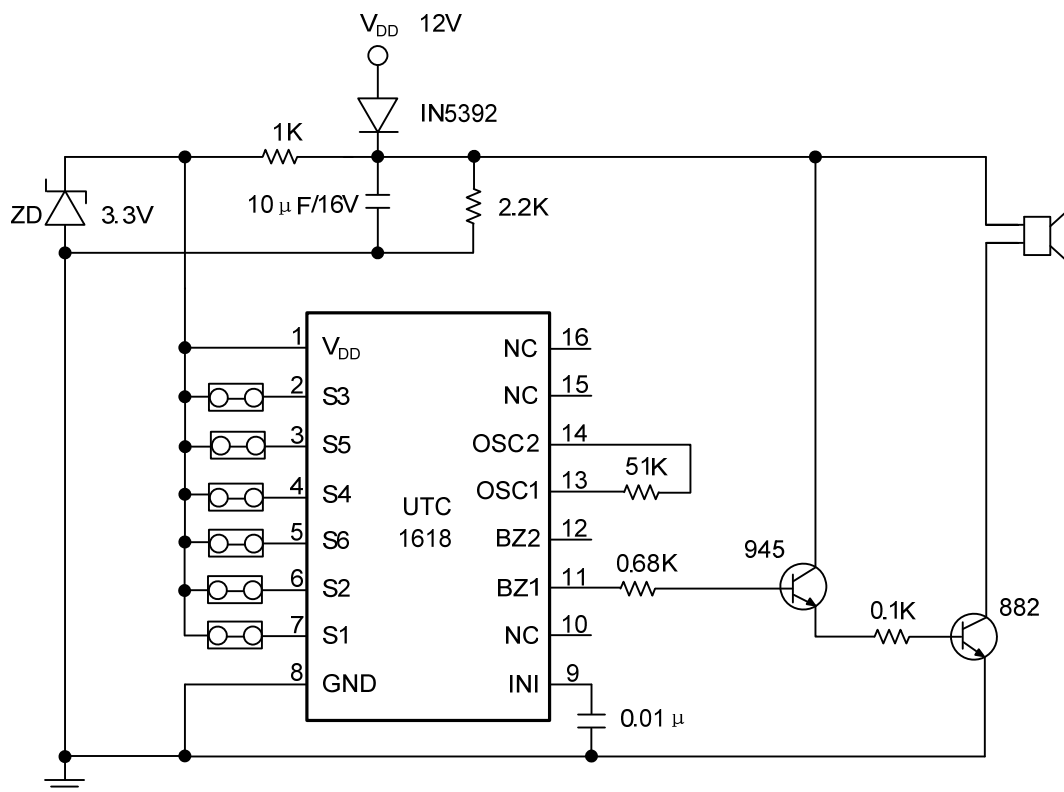
Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

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

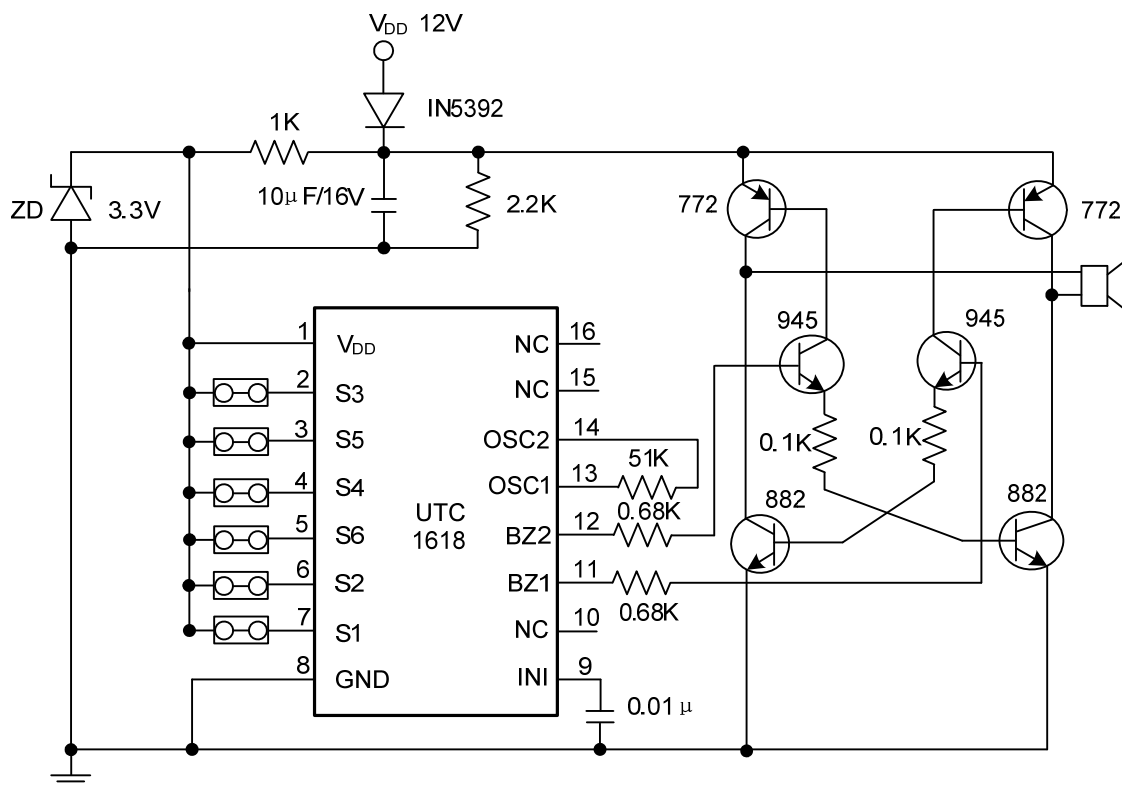
PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT
Operating Voltage	V_{DD}	2	3	5	V
BZ1, BZ2 Driving Current	I_{OH}	1			mA
	I_{OL}	1			mA
Stand-By Current	I_{SB}		10	20	μA
Operating Current	I_{OP}		300	500	μA
Operating Frequency	F_{OP}	70	80	128	KHz

APPLICATION CIRCUIT

(I)



(II)



UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice.