# UNISONIC TECHNOLOGIES CO., LTD

1618

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.
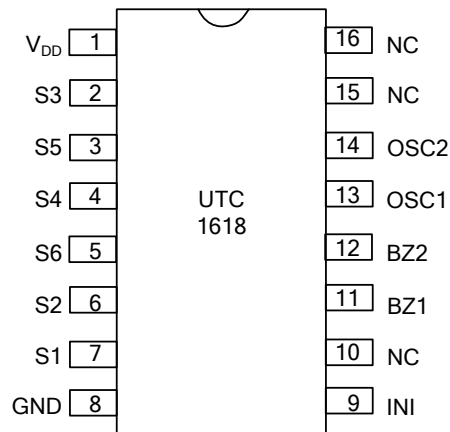* Low stand by current.
* CMOS process.
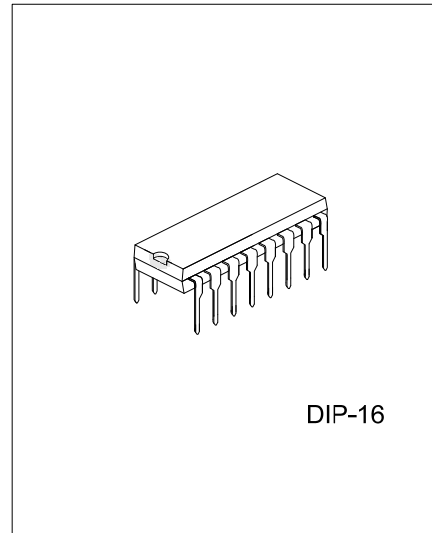
DIP-16

Lead-free: 1618L
Halogen-free: 1618G

■ **ORDERING INFORMATION**

Ordering Number			Package	Packing
Normal	Lead Free	Halogen Free		
1618-D16-T	1618L-D16-T	1618G-D16-T	DIP-16	Tube

1618L-D16-T

— (1)Packing Type

— (2)Package Type

— (3)Lead Plating

(1) T: Tube

(2) D16: DIP-16

(3) G: Halogen Free, L: Lead Free, Blank: Pb/Sn

QW-R502-007.E

■ **PIN CONFIGURATION**

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         ┌─────┐
VDD  │ 1      16 │  NC
S3   │ 2      15 │  NC
S5   │ 3      14 │  OSC2
S4   │ 4   UTC  13 │  OSC1
S6   │ 5   1618  12 │  BZ2
S2   │ 6      11 │  BZ1
S1   │ 7      10 │  NC
GND  │ 8       9 │  INI
         └─────┘
```

■ **PIN DESCRIPTIONS**

PIN #	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.
3	S5	I	The sound output will be enabled when a key is connected to V_{DD}. On other
4	S4	I	hands, the sound output will be disabled if a key is N.C. or connected to GND.
5	S6	I	When two or more keys are selected in the same time, the sound will be
6	S2	I	generated in cycling sequence. According to the priority of the keys,
7	S1	I	the proirity of S1~S6 list below : S1>S2>S6>S4>S5>S3.
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**

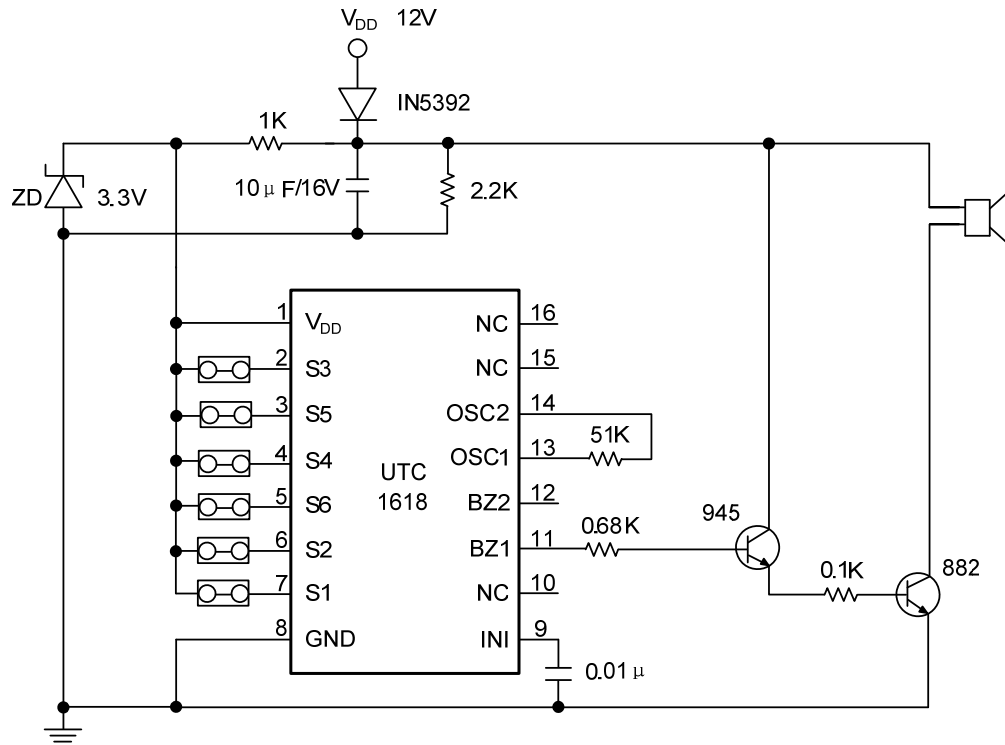| PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V_{DD}	-0.3 ~ 6	V
Input Voltage	V_{IN}	-0.3 ~ V_{DD}+0.3	V
Output Voltage	V_{OUT}	-0.3 ~ V_{DD}+0.3	V
Operating Temperature	T_{OPR}	0 ~ 65	°C
Storage Temperature	T_{STG}	-40 ~ 125	°C

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.

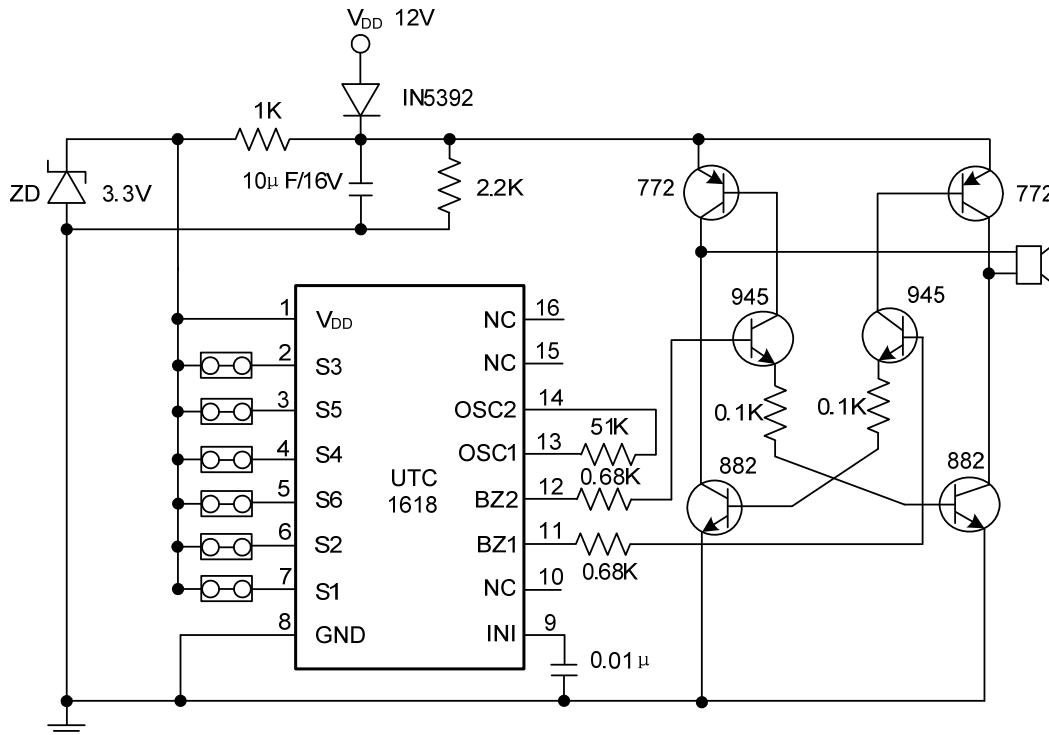■ **ELECTRICAL CHARACTERISTICS** (V_{DD}=3V,T_a=25°C, unless otherwise specified)

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	uA
Operating Current	I_{op}		300	500	uA
Operating Frequency	F_{op}	70	80	128	KHz

■ APPLICATION CIRCUIT

(I)

(II)

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