



## USS359

Preliminary

LINEAR INTEGRATED CIRCUIT

### 8 GUN SOUND BUILT IN TRANSISTOR

#### DESCRIPTION

The UTC **USS359** is a new type CMOS sound generator designed for using in rhythm box, toys, etc. It is designed with sound composite system by minimum application circuit and electrify is working. It's easy for you to design your consumer products.

#### FEATURES

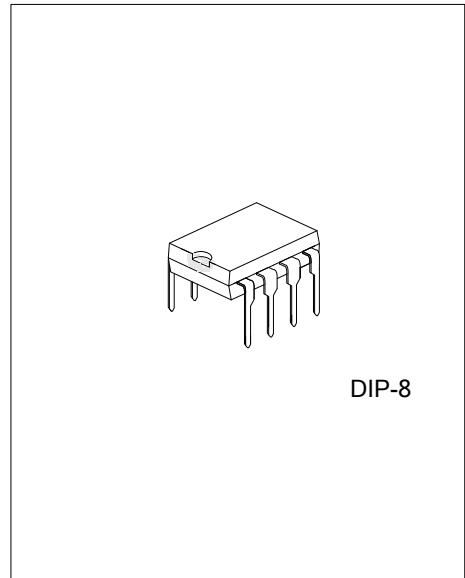
- \* 2V~3.5V power supply
- \* Built-in oscillator and Typical oscillator frequency 128KHz .
- \* Without retriggerable
- \* Electrify is working
- \* Auto power off

#### ORDERING INFORMATION

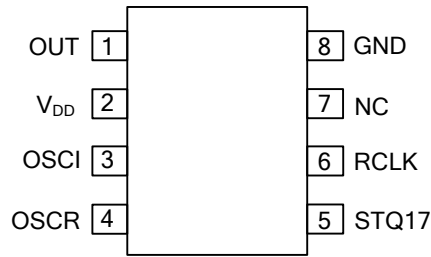
| Ordering Number |               | Package | Packing |
|-----------------|---------------|---------|---------|
| Lead Free       | Halogen Free  |         |         |
| USS359L-D08-T   | USS359G-D08-T | DIP-8   | Tube    |

Note: xx: Output Voltage, refer to Marking Information.

|                   |  |  |
|-------------------|--|--|
| USS359L-D08-T<br> | (1)Packing Type<br>(2)Package Type<br>(3)Lead Free | (1) T: Tube<br>(2) D08: DIP-8<br>(3) L: Lead Free, G: Halogen Free |
|-------------------|--|--|



■ PIN CONFIGURATION



■ PIN DESCRIPTION

| PIN NO. | PIN NAME        | DESCRIPTION               |
|---------|-----------------|---------------------------|
| 1       | OUT             | Sound direct output pin   |
| 2       | V <sub>DD</sub> | Positive power supply pin |
| 3       | OSCI            | Oscillator input          |
| 4       | OSCR            | Oscillator output         |
| 5       | STQ17           | For test                  |
| 6       | RCLK            | For test                  |
| 7       | NC              | Test mode pin             |
| 8       | GND             | Negative power supply pin |

■ ABSOLUTE MAXIMUM RATING

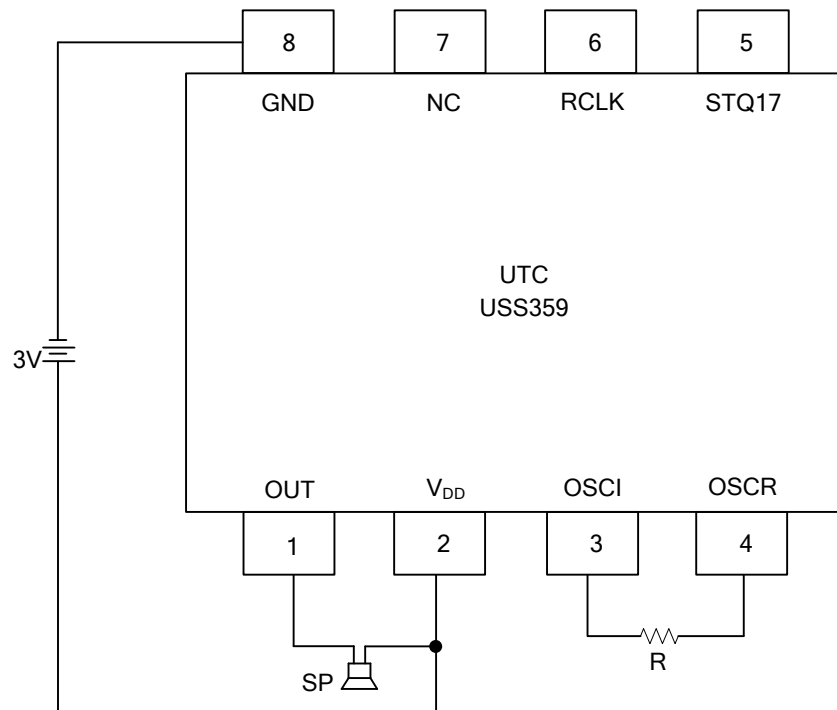
| PARAMETER             | SYMBOL    | RATINGS | UNIT |
|-----------------------|-----------|---------|------|
| Supply Voltage        | $V_{DD}$  | 0~5     | V    |
| Input/ Output Voltage | $V_I/V_O$ | 0~5     | V    |
| Operating Temperature | $T_{OPR}$ | 0~60    | °C   |
| Storage Temperature   | $T_{STG}$ | -20~100 | °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

| PARAMETER             | SYMBOL    | TEST CONDITIONS | MIN | TYP | MAX | UNIT |
|-----------------------|-----------|-----------------|-----|-----|-----|------|
| Operating Voltage     | $V_{DD}$  |                 |     | 3   | 3.5 | V    |
| Operating $I_{DD}$    | $I_{DD}$  | No Load         |     | 0.1 | 0.5 | mA   |
| Quiescent $I_{DD}$    | $I_{DD}$  |                 |     | 1   | 5   | μA   |
| OUT Driving Current   | $I_{DRV}$ | $V_{DS}=1V$     | 80  |     |     | mA   |
| Oscillator Frequency  | $F_{OSC}$ | ±30% TOL        |     | 125 |     | KHz  |
| Operating Temperature | $T_{EMP}$ |                 | 0   | 25  | 60  | °C   |

■ TYPICAL APPLICATION CIRCUIT



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