# UTC UNISONIC TECHNOLOGIES CO., LTD

# A6966

## LINEAR INTEGRATED CIRCUIT

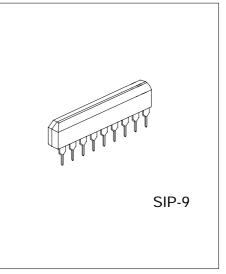
# **5 DOT LED LEVEL METER**

#### **DESCRIPTION**

The UTC A6966 is designed for 5 LED level meter driver in 9 lead SIP package. It consists of one input amplifier and five comparators for LED level indication.

#### **FEATURES**

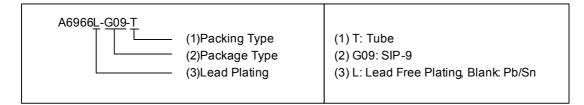
- \* Low Spurious Noise Operation.
- \* Constant Current Output: I<sub>OUT</sub>=8mA (Typ.)
- \* Indication Level Steps: 5dB, 5dB, 3dB, 3dB
- \* Wide Operating Supply Voltage Range: V<sub>CC</sub> = 4~ 12V
- \* Variable Input Amplifier Gain: G<sub>V</sub> = 0 ~ 20dB



\*Pb-free plating product number: A6966L

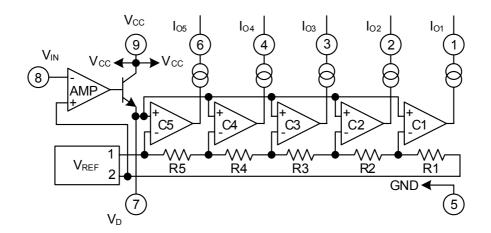
#### ■ ORDERING INFORMATION

| Order Number |                   | Package | Packing |  |
|--------------|-------------------|---------|---------|--|
| Normal       | Lead Free Plating | Fackage | Packing |  |
| A6966-G09-T  | A6966L-G09-T      | SIP-9   | Tube    |  |



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# ■ BLOCK DIAGRAM



# ■ ABSOLUTE MAXIMUM RATINGS (Ta = 25 )

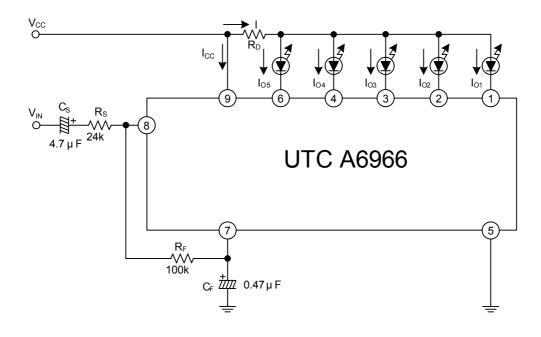
| PARAMETER                    |                  | RATINGS    | UNIT |
|------------------------------|------------------|------------|------|
| Supply Voltage               | Vcc              | 14         | V    |
| LED Driving Terminal Voltage | VL               | 15         | V    |
| Power Dissipation            | J                | 600        | mW   |
| Derated above Ta = 25        | P <sub>D</sub>   | 4          | mW/  |
| Operating Temperature        | T <sub>OPR</sub> | -20 ~ +85  |      |
| Storage Temperature          | T <sub>STG</sub> | -40 ~ +150 |      |

- Note 1. Absolute maximum ratings are stress ratings only and functional device operation is not implied. The device could be damaged beyond Absolute maximum ratings.
  - 2. The device is guaranteed to meet performance specifications within 0  $\sim$ +70 operating temperature range and assured by design from -20  $\sim$ +85 .

### ■ **ELECTRICAL CHARACTERISTICS** (Ta = 25 , V<sub>CC</sub>= 9V, f = 1kHz, unless otherwise specified.)

| PARAMETER               | SYMBOL                 | TEST CONDITIONS                                | MIN  | TYP | MAX  | UNIT       |
|-------------------------|------------------------|--|------|-----|------|------------|
| Quiescent Current       | IQ                     | V <sub>IN</sub> = 0V                           |      | 3   | 5    | mA         |
| Output Current          | I <sub>OUT</sub>       |  | 5    | 8   | 10   | mA         |
| Output Leak Current     | I <sub>OUT</sub> (OFF) |  |      |     | 50   | μA         |
| Sensitivity             | V <sub>LD5</sub> (ON)  | $R_S = 24k\Omega$ , $R_F = 100k\Omega$         |      | 230 |      | $mV_{RMS}$ |
| LED Turn-on Input Level | D5                     | $R_S$ = 24kΩ, $R_F$ = 100kΩ<br>$I_{OUT}$ = 1mA | -1   | 0   | 1    |            |
|                         | D4                     |  | -4   | -3  | -2   |            |
|                         | D3                     |  | -7.5 | -6  | -4.5 | dB         |
|                         | D2                     |  | -13  | -11 | -9   |            |
|                         | D1                     |  | -19  | -16 | -13  |            |

#### ■ TYPICAL APPLICATION CIRCUIT



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