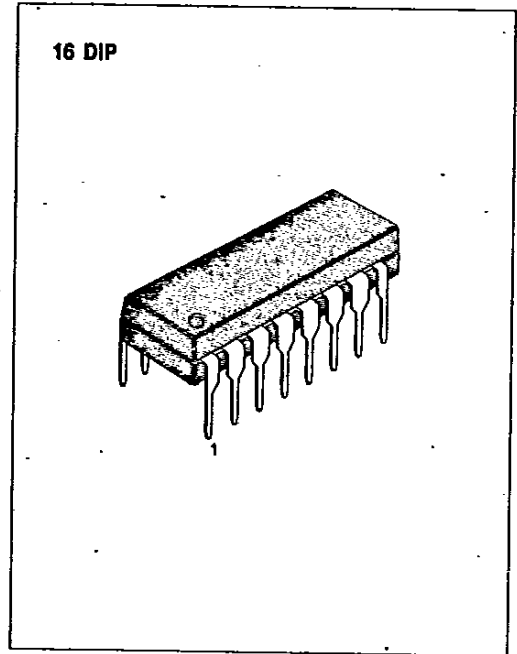


5 DOT DUAL LED LEVEL METER DRIVER

The KA2283 is a monolithic integrated circuit consisting of 2 channel LED level meter driver which was designed for use in stereo radio cassette tape recorder and home stereo.

FEATURES

- Suitable for AC level meter driver.
- Comparator level (-8, -6, -4, -2, 0dB) x2.
- Capable of driving red/green/yellow LEDs.
- Externally adjustable gain of input amp.
- Wide operating supply voltage range (5V ~ 14V).
- 10 dot dual output combined with KA2281.
- Applicable to 10 dot mono output.
- High Input Impedance.
- Minimum number of external parts required.



BLOCK DIAGRAM

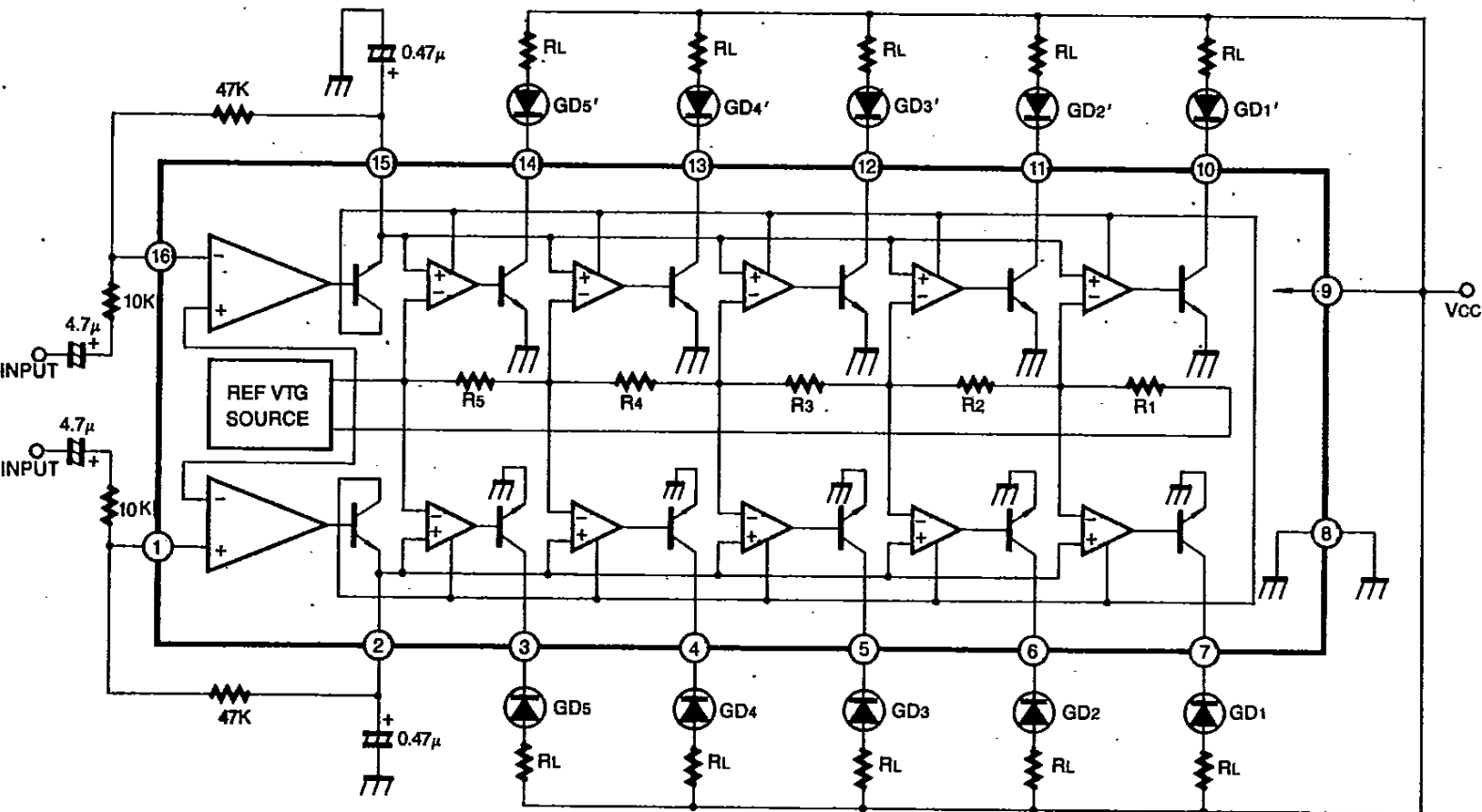


Fig. 1

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ABSOLUTE MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

| Characteristic | Symbol | Value | Unit |
|---------------------------|-----------|------------|------------------|
| Supply Voltage | V_{CC} | 16 | V |
| D Terminal Output Current | I_o | 30 | mA |
| Power Dissipation | P_d | 600 | mW |
| Operating Temperature | T_{opr} | -20 ~ +70 | $^\circ\text{C}$ |
| Storage Temperature | T_{stg} | -40 ~ +125 | $^\circ\text{C}$ |

ELECTRICAL CHARACTERISTICS

($T_a = 25^\circ\text{C}$, $V_{CC} = 12\text{V}$, $f = 1\text{KHz}$, unless otherwise specified)

| Characteristic | Symbol | Test Conditions | Min | Typ | Max | Unit |
|----------------------------|-------------------|---|-----|------|-----|------------------|
| Quiescent Circuit Current | I_{CC} | $V_i = 0$ | | 4 | | mA |
| D Terminal ON Voltage | V_{OL} | $I_o = 20\text{mA}$ | | 1.5 | | V |
| D Terminal Leakage Current | I_o (off) | $V_i = 0$ | | | 50 | μA |
| Voltage Gain (Closed Loop) | A_v | | | 13.4 | | dB |
| Comparator ON Level | $GD_5 GD_5'$ | $A_v = 13.4\text{dB}$ | -1 | 0 | 1 | dB |
| | $GD_4 GD_4'$ | | -3 | -2 | -1 | |
| | $GD_3 GD_3'$ | | -5 | -4 | -3 | |
| | $GD_2 GD_2'$ | | -7 | -6 | -5 | |
| | $GD_1 GD_1'$ | | -9 | -8 | -7 | |
| LED ON Level Difference | $\Delta GD_{1,5}$ | $GD_{1,5} - GD'_{1,5}$ $A_v = 13.4\text{dB}$ | -1 | 0 | 1 | dB |
| Input Impedance of Amp | R_i | | | 200 | | $\text{K}\Omega$ |

* Definition of 0dB; when the value of Input voltage is 218mVrms

APPLICATION CIRCUIT

1. 5 dot dual application

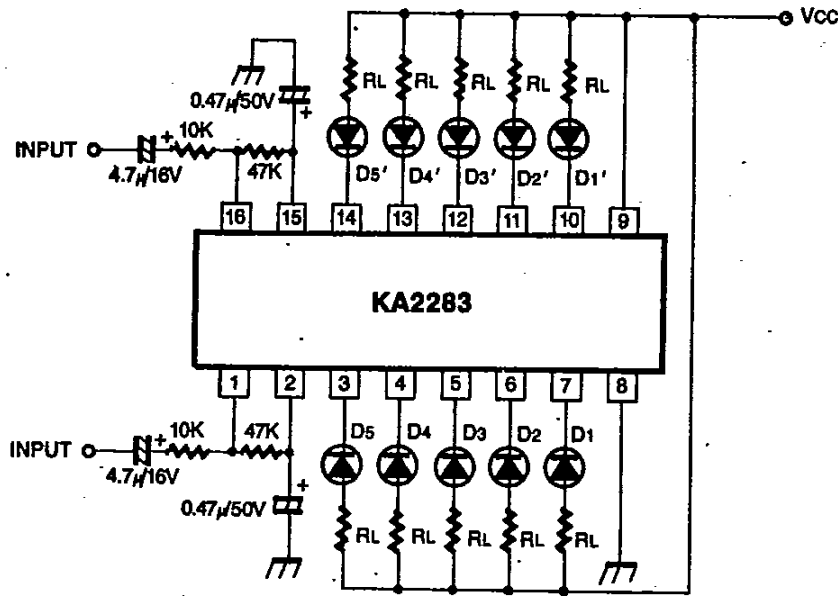
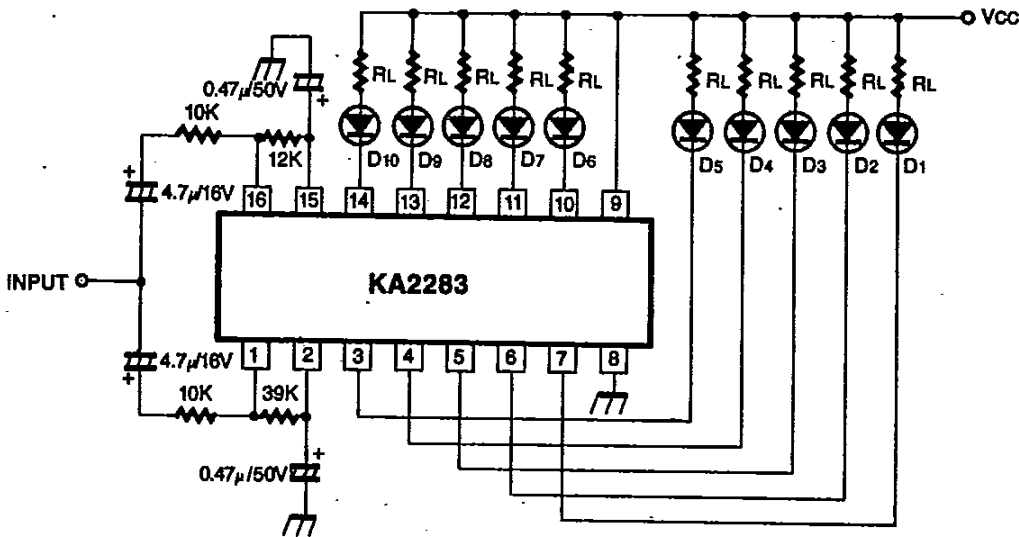


Fig. 2

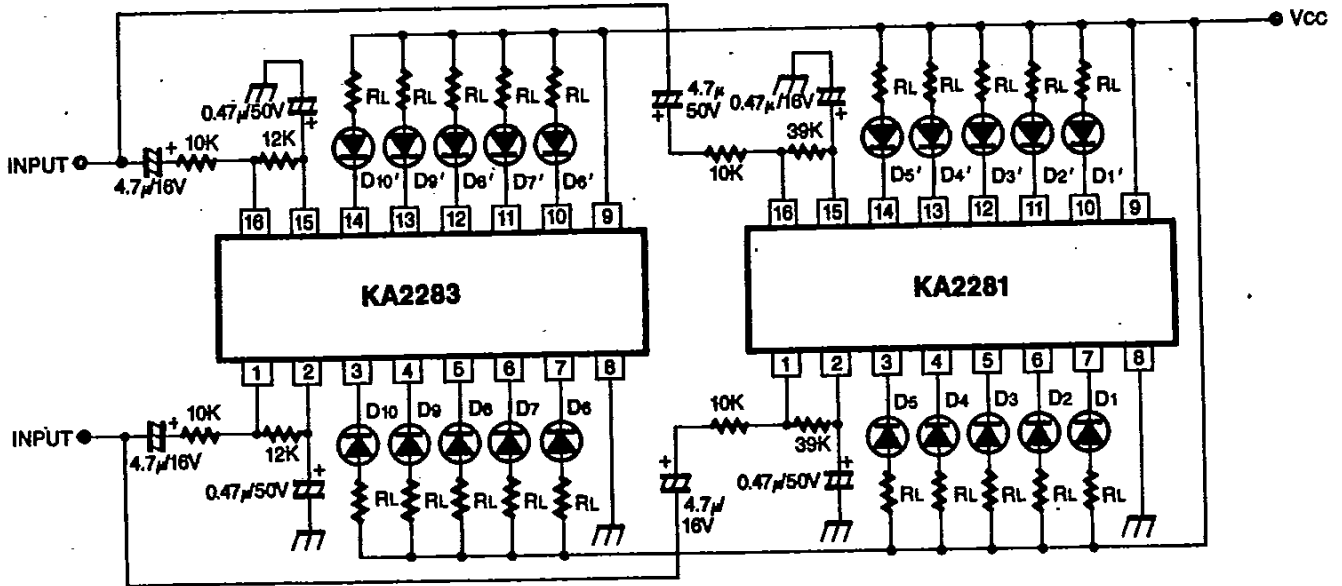
2. 10 dot mono application



$V_I = 822, 653, 519, 412, 327, 260, 206, 163, 129, 102\text{mVrms}$
 $+6, +4, +2, 0, -2, -4, -6, -8, -10, -12\text{dB}$

Fig. 3

3. 10 dot dual application with KA2281



VI = 830, 660, 524, 417, 331, 263, 184, 130, 73, 41mVrms
 +6, +4, +2, 0, -2, -4, -7, -10, -15, -20dB

Fig. 4