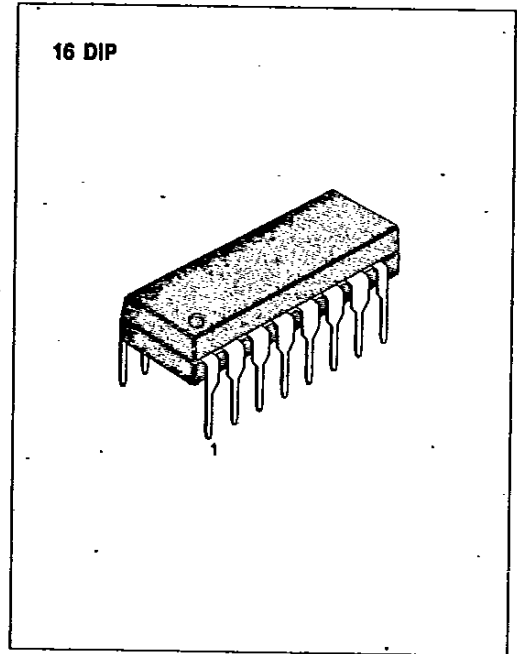


5 DOT DUAL LED LEVEL METER DRIVER

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

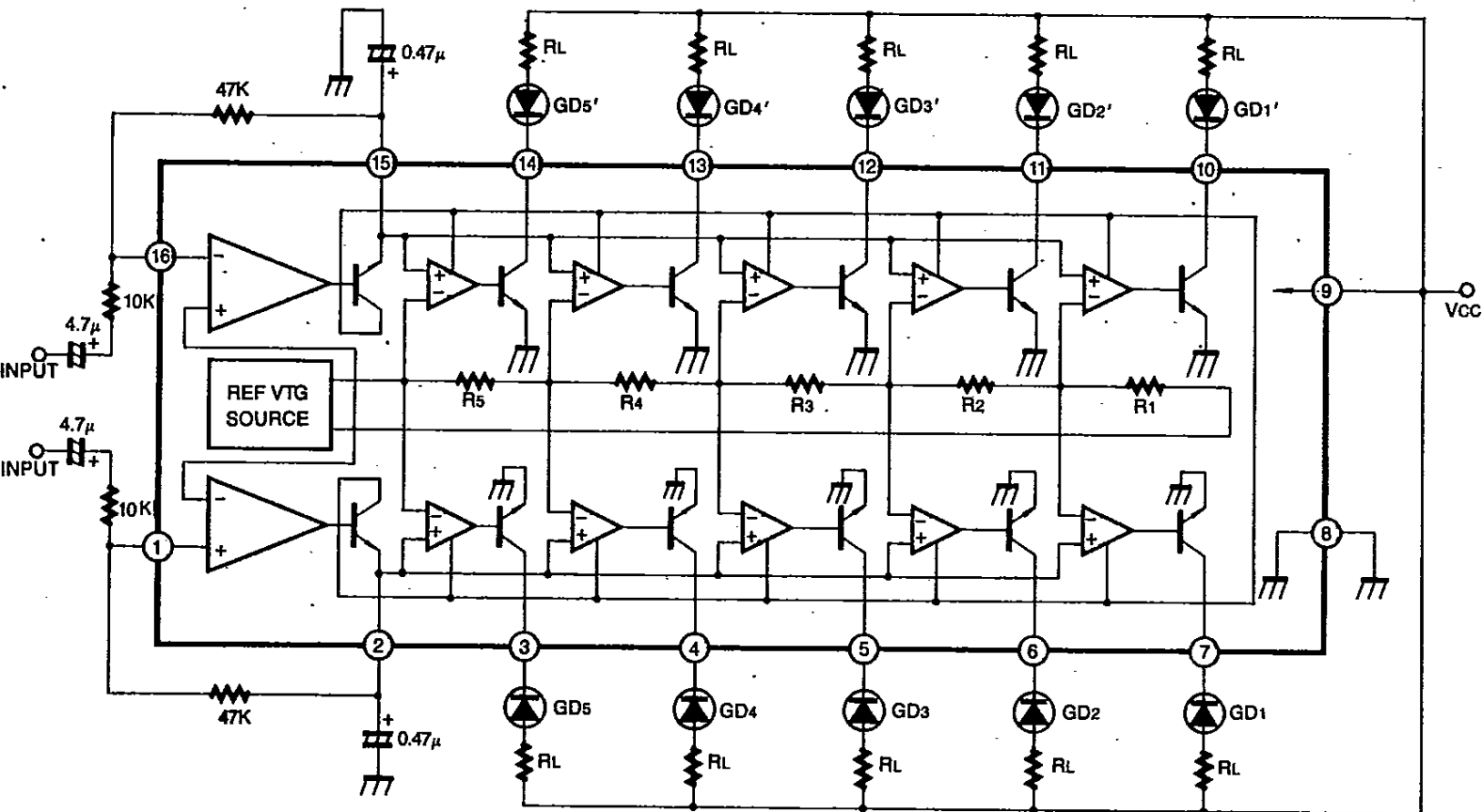


Fig. 1

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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

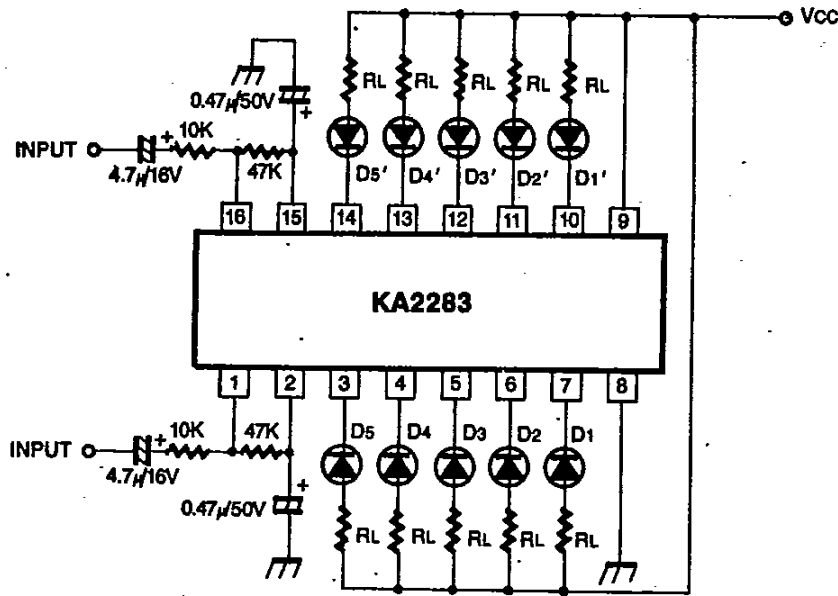
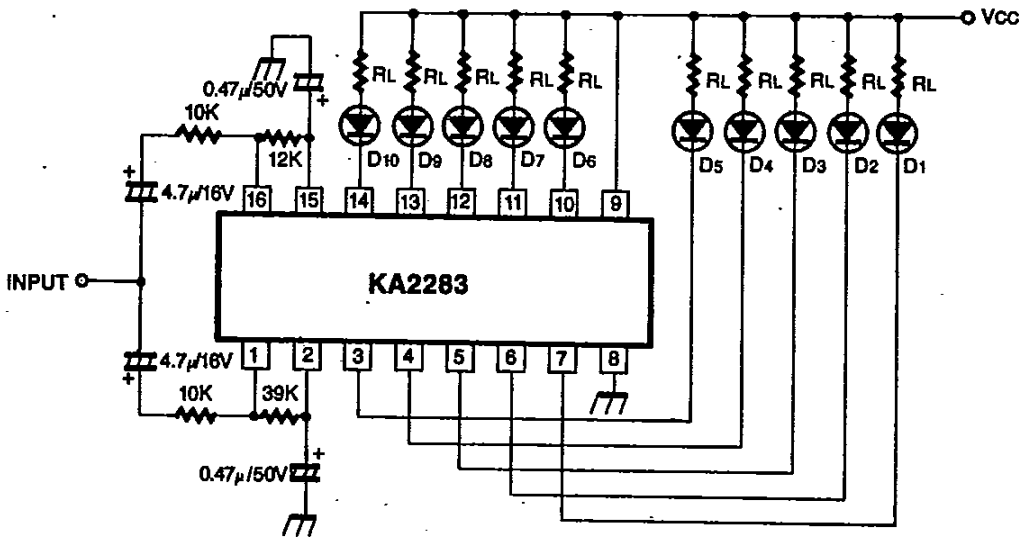


Fig. 2

2. 10 dot mono application

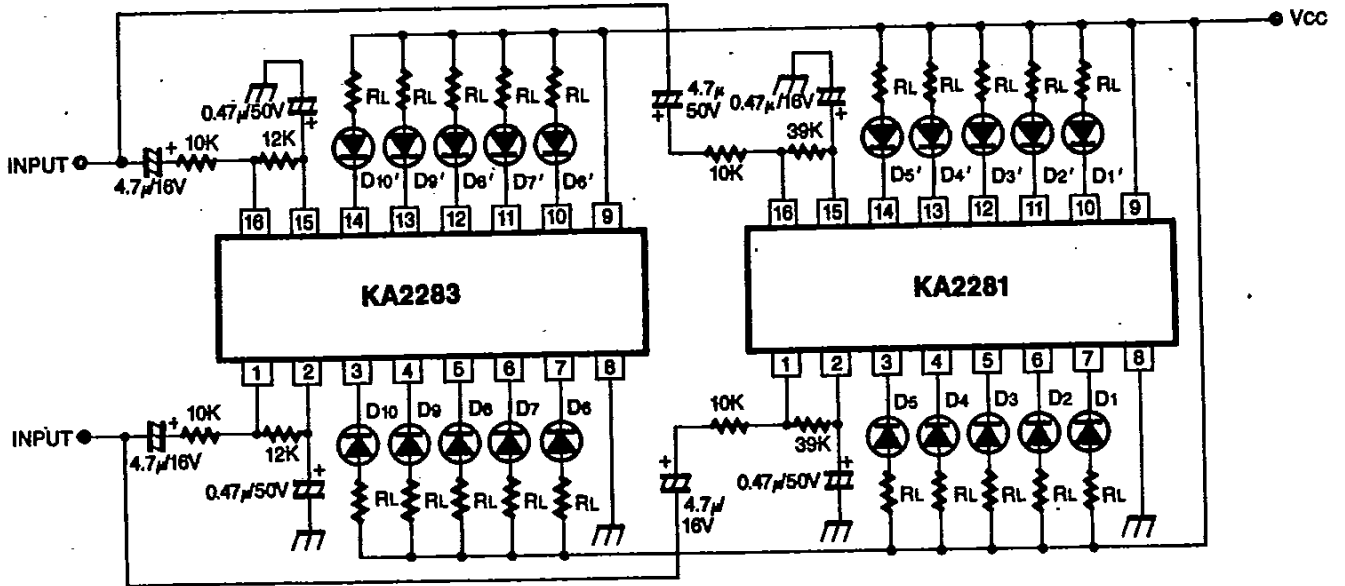


$V_I = 822, 653, 519, 412, 327, 260, 206, 163, 129, 102\text{mVrms}$
 $+6, +4, +2, 0, -2, -4, -6, -8, -10, -12\text{dB}$

Fig. 3

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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