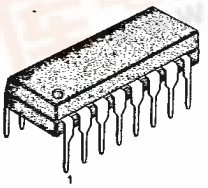
KA2283 LINEAR INTEGRATED CIRCUIT

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.

16 DIP



FEATURES

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

BLOCK DIAGRAM

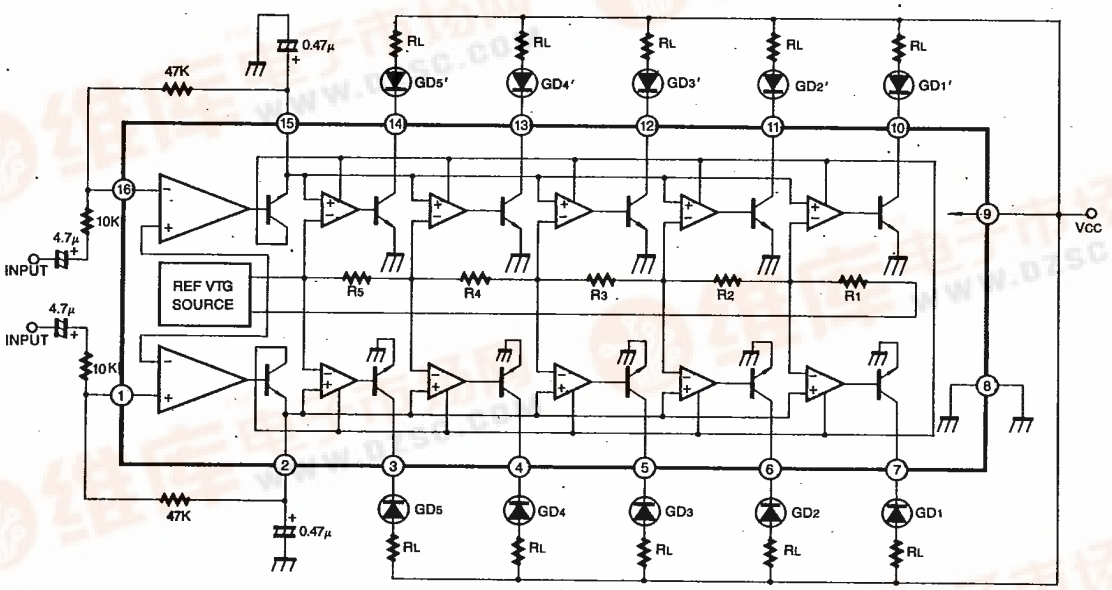


Fig. 1

KA2283 LINEAR INTEGRATED CIRCUIT

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

Characteristic	Symbol	Value	Unit
Supply Voltage	V_{CC}	16	V
D Terminal Output Current	I_D	30	mA
Power Dissipation	P_d	600	mW
Operating Temperature	Topr	−20 ~ +70	°C
Storage Temperature	Tstg	−40 ~ +125	°C

ELECTRICAL CHARACTERISTICS

(T_a=25°C, V_{CC}=12V, f=1KHz, 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=20mA		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=13.4dB	−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	$\Delta GD_{1\text{-}5}$	$GD_{1\text{-}5}$-$GD'_{1\text{-}5}$ A_V=13.4dB	−1	0	1	dB
Input Impedance of Amp	R_i			200		KΩ

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

APPLICATION CIRCUIT

1. 5 dot dual application

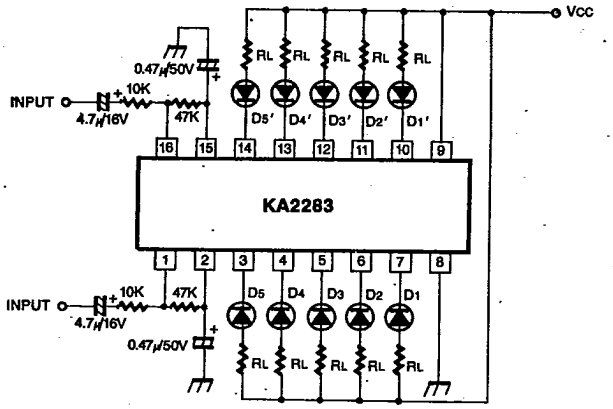
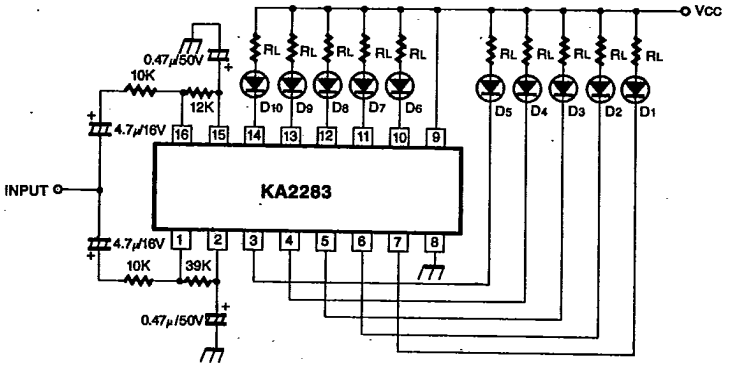


Fig. 2

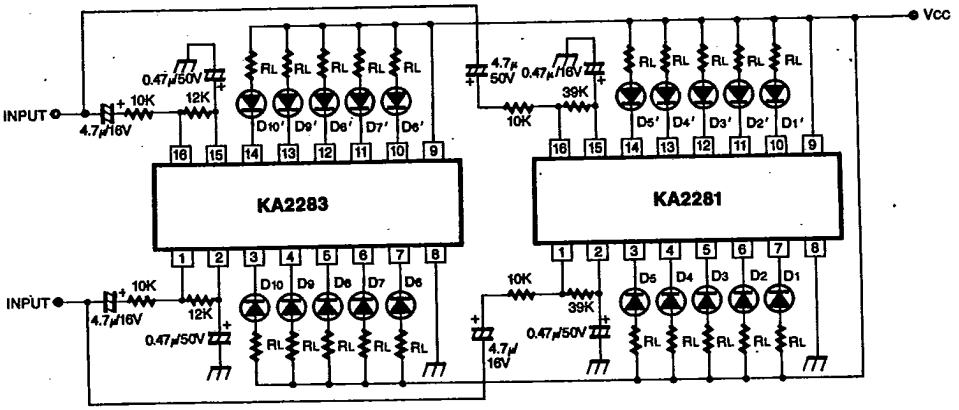
2. 10 dot mono application



Vi = 822, 653, 519, 412, 327, 260, 206, 163, 129, 102mVrms
+6, +4, +2, 0, −2, −4, −6, −8, −10, −12dB

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