

KA2284

LINEAR INTEGRATED CIRCUIT

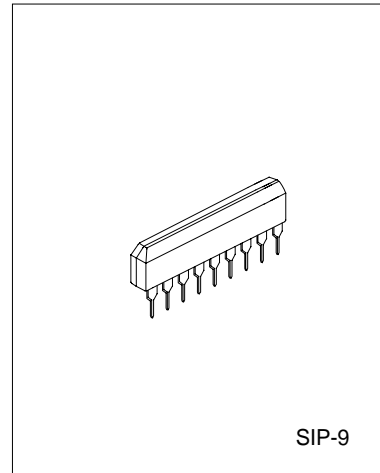
5-DOT DUAL LED LEVEL METER DRIVER

DESCRIPTION

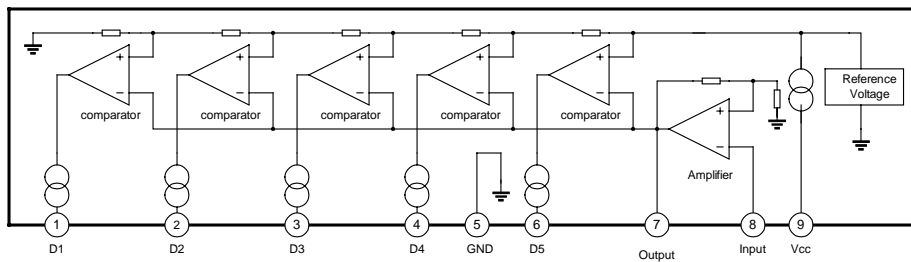
The KA2284 is a monolithic integrated circuit designed for 5-dot LED level meter drivers with a built-in rectifying amplifier. It is suitable for AC/DC level meters such as VU meters or signal meters.

FEATURES

- *High gain rectifying amplifier included($G_v=26\text{dB}$)
- *Low radiation noise when LED turns on
- *logarithmic indicator for 5-dot LED of bar type.
- *Constant current output(15mA)
- *Wide operating supply voltage(3.5V~16V)
- *Not necessary diode or transistor for ALC
- *Minimum number of external parts required



BLOCK DIAGRAM

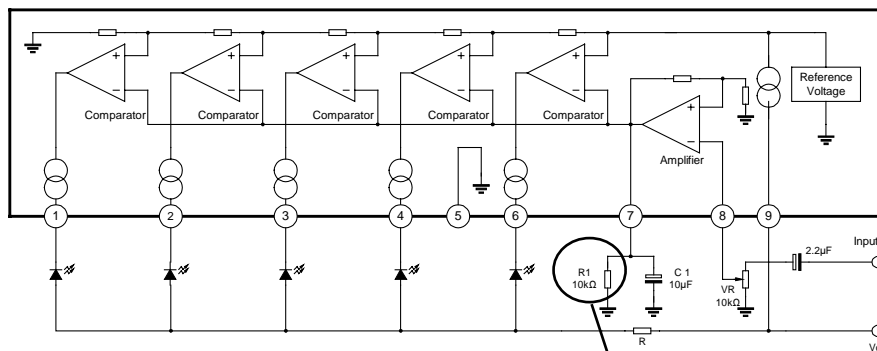


ABSOLUTE MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

Characteristic	Symbol	Value	Unit
Supply Voltage	V_{cc}	16	V
Amplifier input Voltage	V_8	-0.5V~ V_{cc}	V
Pin 7 Voltage	V_7	6	V
D terminal Output Voltage	V_D	16	V
Operating Temperature	T_{opr}	-20 to +80	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40 to 125	$^\circ\text{C}$
Power dissipation	P_D	1100	W

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$, $T_c=25^\circ\text{C}$, $V_{CC}=6\text{V}$, $f=1\text{kHz}$, unless otherwise specified)

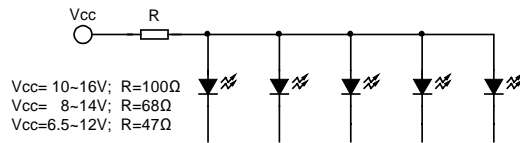
Characteristic	Symbol	Test Condition	Min	Typ.	Max	Unit
Supply Voltage	V_{CC}		3.5	6.0	16.0	V
Supply Current	I_{CC}	$V_{IN}=0$		5	8	mA
Sensitivity	V_{in}	In V_{C3} Level	46	56	66	mV
Comparator ON Level 1	V_{C1}		-11.5	-10.0	-8.5	dB
Comparator ON Level 2	V_{C2}		-6	-5	-4	dB
Comparator ON Level 3	V_{C3}			0		dB
Comparator ON Level 4	V_{C4}		2.5	3.0	3.5	dB
Comparator ON Level 5	V_{C5}		5	6	7	dB
LED Output current	I_{LED}		11.0	15.0	18.5	mA
Amp Gain	G_v	$V_i=0.1\text{V}$	24	26	28	dB
Input Bias Current	I_{NO}		-1.0	-0.3		μA

TEST CIRCUIT

调节此电阻（1K欧姆左右）可调整点灯灵敏度

APPLICATION INFORMATION

1. By changing the time constant C1 and ,the response, attack and release time, may be varied. In the above application conditions, power dissipation may be operated at higher levels than the absolute maximum ratings. The wattage of R is to be determined by the total LED current and R value recommended by the R table.



TO KA2284

TYPICAL PERFORMANCE CHARACTERISTICS

