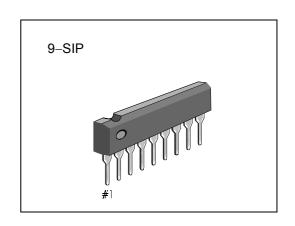
INTRODUCTION

The KA2284B and KA2285B are monolithic integrated circuits 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 = 26dB)
- · Low radiation noise when LED turns on
- Logarithmic indicator for 5-dot bar type LED (-10, -5, 0, 3, 6dB)
- Constant current output KA2284B: lo = 15mA (Typ) KA2285B: lo = 7mA (Typ)
- Wide operating supply voltage range:
 V_{CC} = 3.5V ~ 1 6V
- · Minimum number of external parts required



ORDERING IN FORMATION

Device	Package	Operating Temperature	I _D
KA2284B	9-SIP	– 20°C ~ + 80°C	15mA
KA2285B	3 311	20 0 1 00 0	7mA



BLOCK DIAGRAM

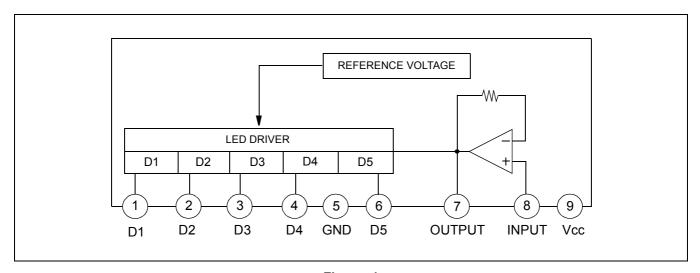


Figure 1.

NOTE: Capacitor to be omitted when used as a DC input signal meter

ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

Characteristic	Symbol	Value	Unit
Supply Voltage	V _{CC}	18	V
Amp Input Voltage	V ₈₋₅	−0.5 ~ V _{CC}	V
Pin 7 Voltage	V ₇₋₅	6	V
D Terminal Output Voltage	V _D	18	V
Circuit Current	I _{CC}	12	mA
D Terminal Output Current	I _D	20	mA
Power Dissipation	P _d	1100	mW
Operating Temperature	T _{OPR}	−20 ~ + 80	°C
Storage Temperature	T _{STG}	−40 ~ + 125	°C

NOTE: $11 \text{mW}/^{\circ}\text{C}$ is decreased at higher temperature than $T_a = 25^{\circ}\text{C}$.



ELECTRICAL CHARACTERISTICS

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

Charact	eristic		Symbol	Test Conditions	Min.	Тур.	Max.	Unit
Circuit Current			I _{CCQ}	V _i = 0V	_	6	8.5	mA
D Output Current	KA22	84B	1-	V _i = 0.15V	11	15	18.5	mA
	KA22	85B	I _O		5	7	9.5	
Input Bias Current	•		I _{BIAS}	_	-1	_	0	μА
Amp Gain			G _V	V _I = 0.1 V	24	26	28	dB
			V _{CL(ON)1}		-12	-10	-8	
			V _{CL(ON)2}		-6	-5	-4	
Comparator ON Le	Level V _{CL (ON)}	V _{CL(ON)3}	_	_	0	_	dB	
		V _{CL(ON)4}		2.5	3	3.5		
			V _{CL(ON)5}		5	6	7	

NOTE: Definition of 0dB: input voltage level when $V_{CL\;(ON)3}$ turn ON (50mV)

TEST CIRCUIT

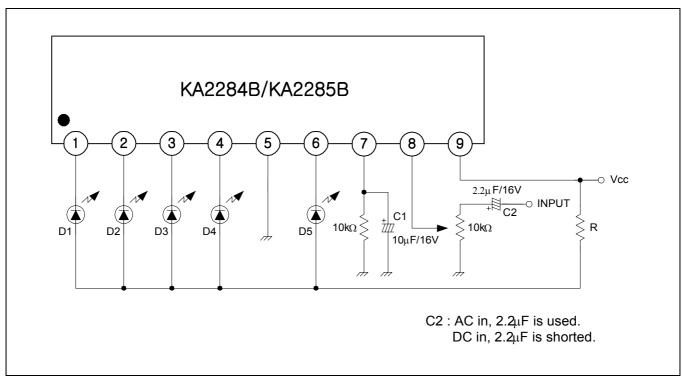


Figure 2.



The recommended value of R at T_a (max) = 60°C.

V _{CC} (V)	8 ~ 12	10 ~ 14	12 ~ 16
$R(\Omega)$	47	68	91

By changing the time constant C_1 and C_2 , 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.

