



LA2284/A

LINEAR INTEGRATED CIRCUIT

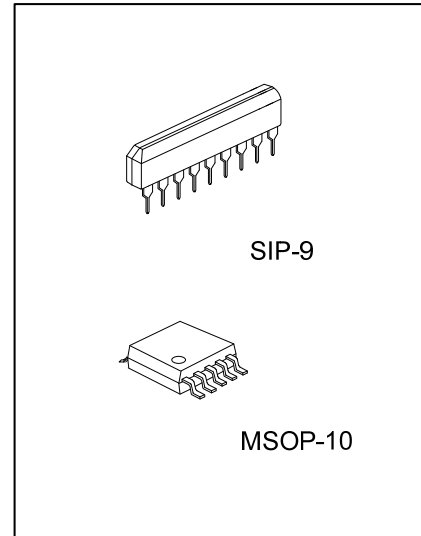
5-DOT DUAL LED LEVEL METER DRIVER

■ DESCRIPTION

The **UTC LA2284/A** 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 ($G_v=26dB$)
- *Low radiation noise when LED turns on
- *Logarithmic indicator for 5-dot LED of bar type
- *Constant current output(15mA)
- *Wide operating supply voltage
- *Not necessary diode or transistor for ALC
- *Minimum number of external parts required



■ ORDERING INFORMATION

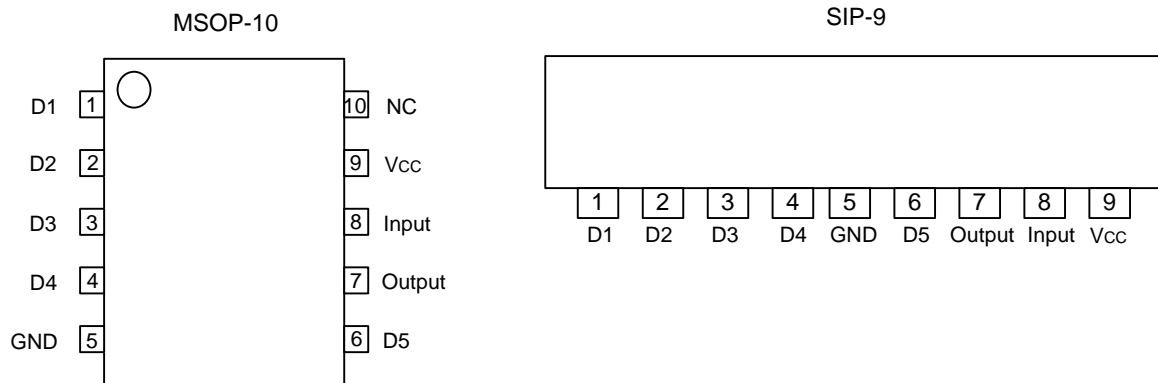
Order Number	Package	Packing
LA2284G-G09-T	SIP-9	Tube
LA2284G-SM2-T	MSOP-10	Tube
LA2284G-SM2-R	MSOP-10	Tape Reel
LA2284AG-G09-T	SIP-9	Tube
LA2284AG-SM2-T	MSOP-10	Tube
LA2284AG-SM2-R	MSOP-10	Tape Reel

<p>LA2284AG-G09-T</p> <ul style="list-style-type: none"> (1) Packing Type (2) Package Type (3) Green Package (4) Supply Voltage 	<ul style="list-style-type: none"> (1) R: Tape Reel, T: Tube (2) G09: SIP-9, SM2: MSOP-10 (3) G: Halogen Free and Lead Free (4) refer to ELECTRICAL CHARACTERISTICS
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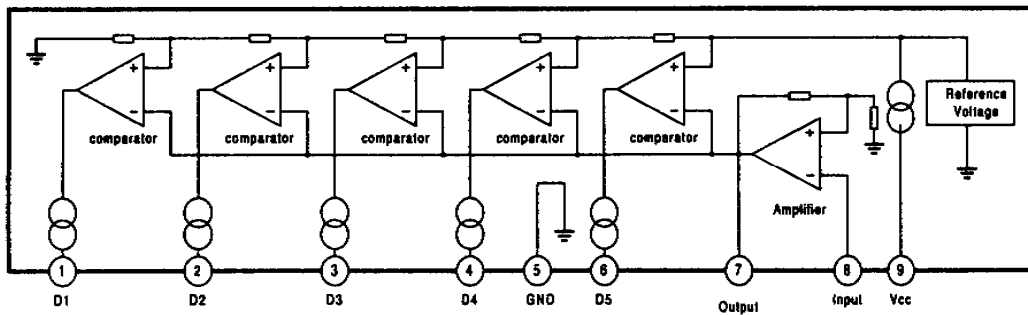
■ MARKING

Package	MARKING	
	LA2284	LA2284A
SIP-9		
MSOP-10		

■ PIN CONFIGURATION



■ BLOCK DIAGRAM



■ ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$, unless otherwise specified)

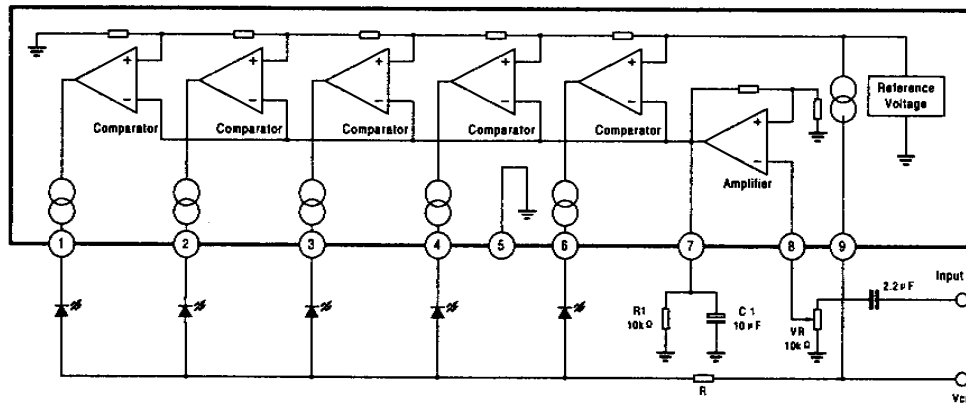
PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V_{CC}	18	V
Amplifier input Voltage	V8	$-0.5 \sim V_{CC}$	V
Pin 7 Voltage	V7	6	V
D terminal Output Voltage	V_D	18	V
Power Dissipation	P_D	1100	W
Operating Temperature	T_{OPR}	$-20 \sim +80$	$^\circ\text{C}$
Storage Temperature	T_{STG}	$-40 \sim +125$	$^\circ\text{C}$

Notes: Absolute maximum ratings are those values beyond which the device could be permanently damaged.
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

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

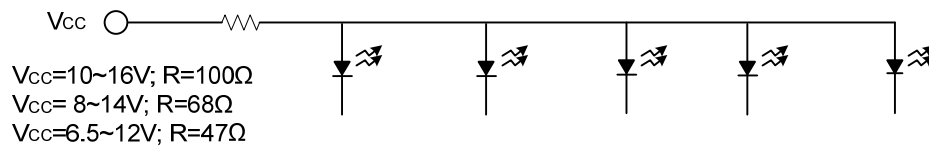
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Supply Voltage	V_{CC}		3.5	6.0	16.0	V
			3.0	6.0	16.0	V
Supply Current	I_{CC}	$V_{IN}=0$		5	8	mA
Sensitivity	V_{IN}	In V_{C3} Level	46	56	66	mV
Comparator ON Level 1	V_{C1}		-11.5	-10.0	-8.5	dB
Comparator ON Level 2	V_{C2}		-6	-5	-4	dB
Comparator ON Level 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	$I_{O(LED)}$		16.5		22	mA
Amp Gain	G_V	$V_{IN}=0.1\text{V}$	24	26	28	dB
Input Bias Current	$I_{I(BIAS)}$		-1.0	-0.3		μA

■ TEST CIRCUIT



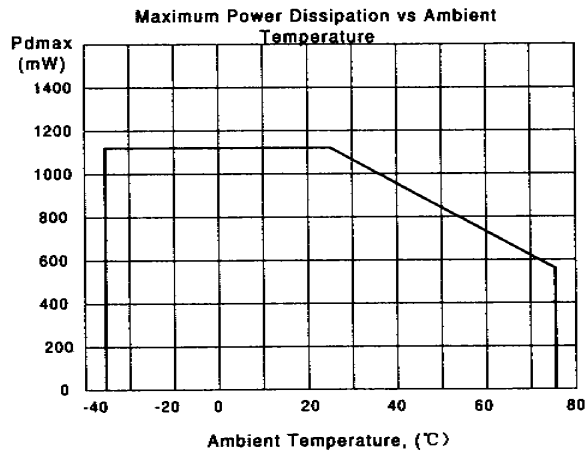
■ APPLICATION INFORMATION

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.





■ TYPICAL CHARACTERISTIC



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