

SANYO

No.1507C

LB1408

Level Meter

Features

- (1) An input amplifier is built in.
- (2) Minimum number of external parts required.
- (3) Low current dissipation because of series connection of LED's.

Absolute Maximum Ratings at Ta=25°C

			unit
Maximum Supply Voltage	V_{CCmax} (Pin 3)	-0.3 to +18.0	V
Maximum Input Voltage	V_{INmax} (Pin 2)	-0.3 to V_{CC}	V
D Pin Output Current	I_{Dmax} Output transistor ON	0 to 30	mA
D Pin Output Voltage	V_{Dmax}	-0.3 to V_{CC}	V
Reference Flow-Out Current	I_{refmax} (Pin 4)	-3.0 to 0	mA
Allowable Power Dissipation	P_{dmax}	1.2	W
Operating Temperature	T_{opr}	-30 to +80	°C
Storage Temperature	T_{stg}	-40 to +125	°C

Allowable Operating Conditions at Ta=25°C

			unit
Supply Voltage	V_{CC}	6.7 to 16.0	V

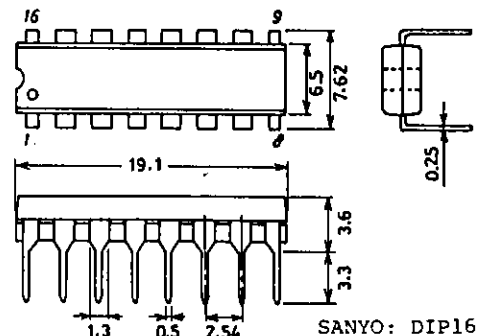
Electrical Characteristics at Ta=25°C, $V_{CC}=12V$

		min	typ	max	unit
Current Dissipation I_{CC}	Quiescent, pin 3 3.3kohms across I_{LED1} and V_{ref}		4	8	mA
Input Bias Current I_{IN}	Pin 2	-10		0	μA
Reference Voltage V_{ref}	Pin 4	4.40	4.85	5.30	V
D Pin Current 1 $I_{D2,4,7}$	3.3kohms across I_{LED1} and V_{ref} $I_{LED2}=GND$, pins 7, 11, 14	12	16	19	mA
Output Saturation Voltage	V_{satD} 1, 3, 5, 6 " , pins 6, 10, 12, 13		1.0	1.3	V
D Pin Current 2 $I_{D2,4,7}$	" , $V_{CC}=6.7V$, $V_{D1,3,6}=0.9V$, pins 7, 11, 14	12		19	mA
OUT Pin Impedance R_{OUT}	Pin 1	8	12	16	kohm

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Package Dimensions 3064

(unit: mm)



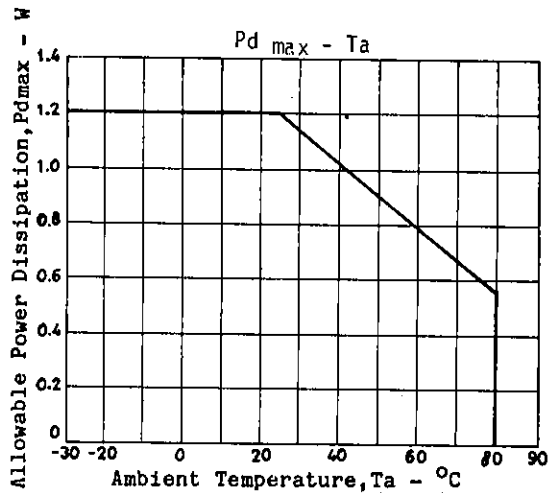
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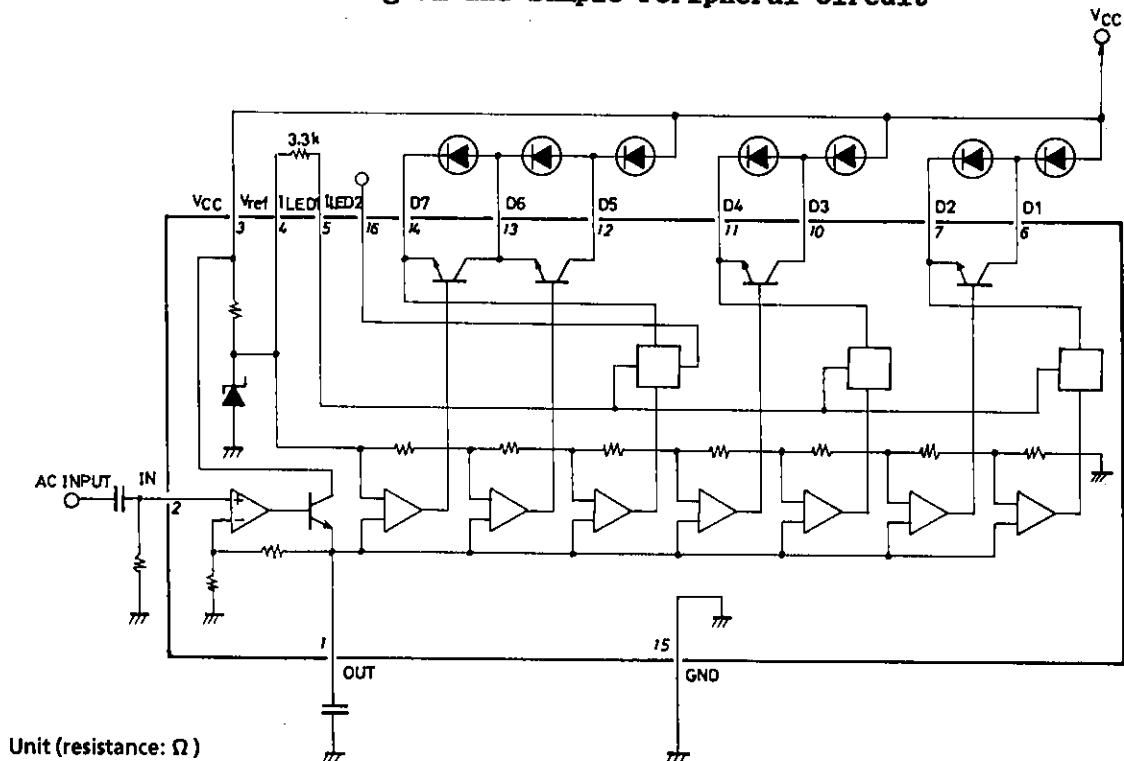
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			min	typ	max	unit	
Input Sensitivity	V_{IN5}	Input voltage at which LED of D5 is lighted	119	132	145	mV	
Comparator Level D1	V_{T1}	Input voltage at which LED of D5 is lighted is taken as 0db.	-26	-20	-14	dB	
	D2	V_{T2}	"	-12	-10	-8	dB
	D3	V_{T3}	"	-7	-6	-5	dB
	D4	V_{T4}	"	-3.5	-3.0	-2.5	dB
	D5	V_{T5}	"	0	0	0	dB
	D6	V_{T6}	"	2.5	3.0	3.5	dB
	D7	V_{T7}	"	5	6	7	dB
Output Leakage Current	I_{DL}	$V_{IN}=0V$, pins 6,10,12	0		10	μA	
D Pin Current 3	I_{D7}	3.3kohms across I_{LED1} and V_{ref}	4.5	6.0	8.0	mA	
D Pin Current 4	I_{D7}	$I_{LED2}=\text{Open}$, pin 14 $V_{CC}=6.7V$, $V_{D6}=0.7V$, Pin 14	4.5		8.0	mA	

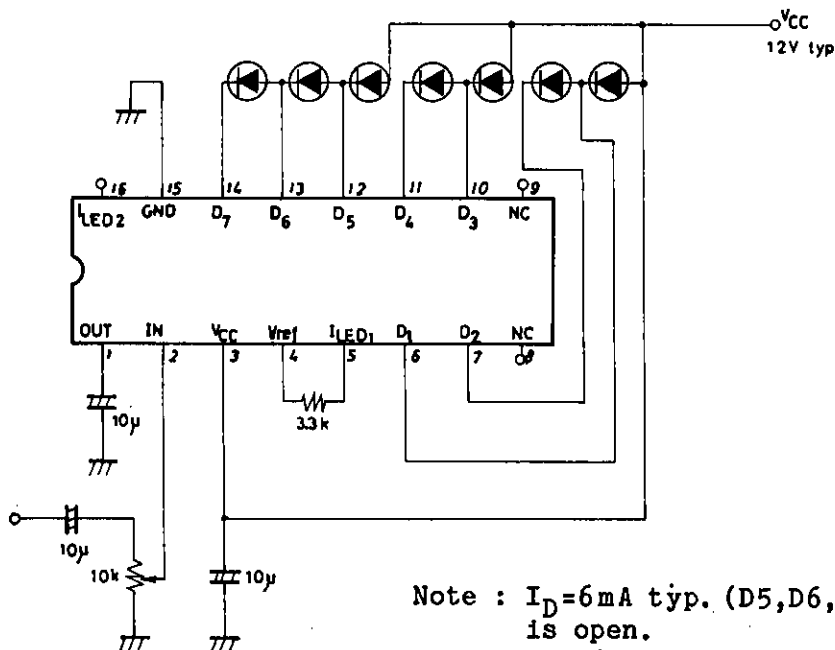


Equivalent Circuit Block Diagram and Sample Peripheral Circuit



Sample Application Circuit

Unit (resistance: Ω, capacitance: F)



Note : $I_D = 6\text{mA typ. (D5,D6,D7)}$ when I_{LED2} (pin 16) is open.
 $I_D = 16\text{mA typ. (D5,D6,D7)}$ when I_{LED2} (pin 16) is grounded.

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