

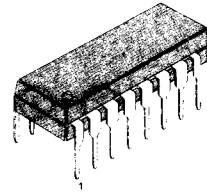
7-DOT LED LEVEL METER DRIVER

The KA2288 is a monolithic integrated circuit consisting of 7-dot LED level meter drivers. The KA2288 employs a low noise comparator which provides 10dB lower noise in the LW, MW band than the previously mentioned LED drivers.

FEATURES

- LED current can be set by an external resistor
- Internal detection amplifier
- Internal voltage regulator
- Constant current output
- Fitted with a signal detect output pin
- VU meter scale

16 DIP



BLOCK DIAGRAM

ORDERING INFORMATION

Device	Package	Operating Temperature
KA2288	16 DIP	-20°C ~ +70°C

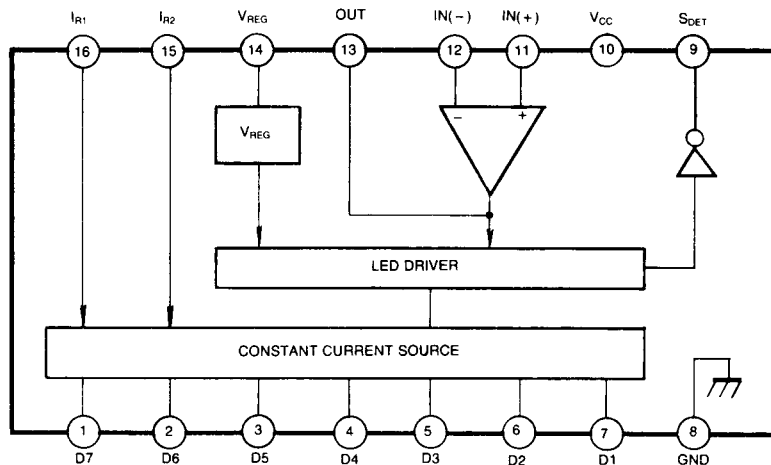


Fig. 1

ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

Characteristic	Symbol	Value	Unit
Supply Voltage	V _{CC}	18	V
Amp Input Voltage	V _I	0 ~ V _{CC}	V
D Terminal Output Current	I _D	30	mA
D Terminal Output Voltage	V _D	V _{CC}	V
Power Dissipation	P _D	650	mW
Operating Temperature	T _{OPR}	-20 ~ +70	°C
Storage Temperature	T _{STG}	-40 ~ +125	°C

ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Circuit Current	I _{CCO}	R ₁ = 4.7K, R ₂ = ∞		8	12	mA
Input Bias Current	I _{BIAS}			-200	-800	nA
Input Offset Voltage	V _{IO}			2	10	mV
Amp Gain	G _V	Open loop	50	70		dB
Reference Voltage	V _{REF}	V _{CC} = 6.2 ~ 16V, R _L = 10K	2.4	2.6	2.9	V
Signal Detection Output High Level	V _{OH(DET)}	R _L = 10K	10	10.3	V	
Output Current 1	I _{O1}	R ₁ = 10K, R ₂ = ∞	4.2	7.1	10.0	mA
Output Current 2*	I _{O2}	R ₁ = 10K, R ₂ = 22K	6.3	10.6	15.0	mA
Output Leakage Current	I _{LEK}	R ₁ = 4.7K, R ₂ = ∞			20	μA
Comparator On Level	V _{CL(ON)1}	V _{CC} = 6.2V ~ 16V	-22	-20	-18	dB
	V _{CL(ON)2}		-11	-10	-9	
	V _{CL(ON)3}		-6.5	-6	-5.5	
	V _{CL(ON)4}		-3.5	-3	-2.5	
	V _{CL(ON)5}			0		
	V _{CL(ON)6}		+2.5	+3	+3.5	
	V _{CL(ON)7}		+5	+6	+7	
0dB Level	V _{CL(ON)5}	V _{CC} = 6.2 ~ 16V, V _{REF} = 2.4 ~ 2.9V	1.2	1.3	1.45	V

* : Applied pin: 4, 5, 6, 7

TEST CIRCUIT

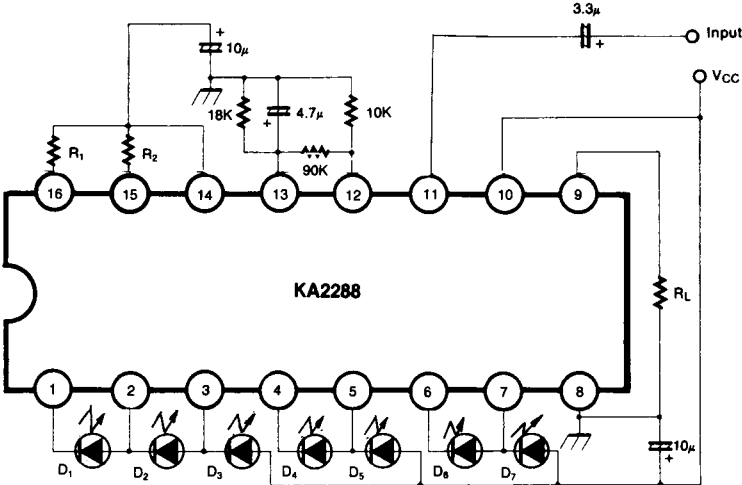


Fig. 2