

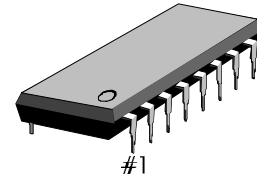
INTRODUCTION

The S1A2288X01 is a monolithic integrated circuit consisting of 7-dot LED level meter drivers. The S1A2288X01 employs a low noise comparator which lowers the noise in the LW, MW band to 10 dB less 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

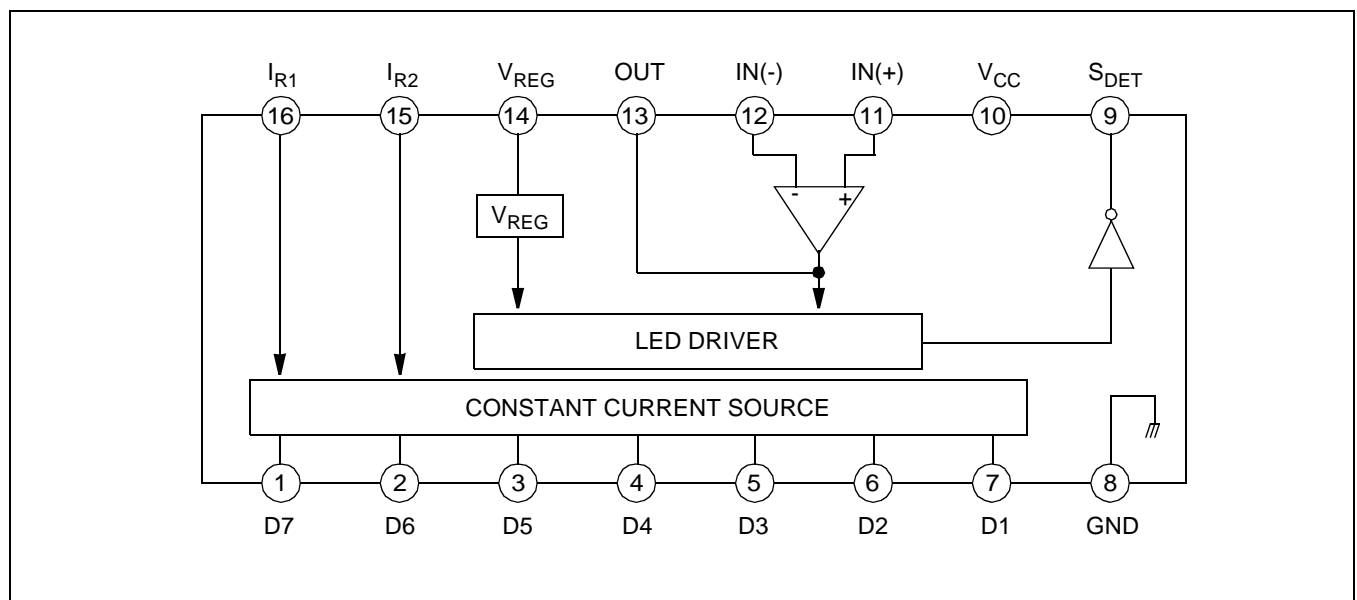
16-DIP-300A



ORDERING INFORMATION

Device	Package	Operating Temperature
S1A2288X01-D0B0	16-DIP-300A	20°C – +70°C

BLOCK DIAGRAM



ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

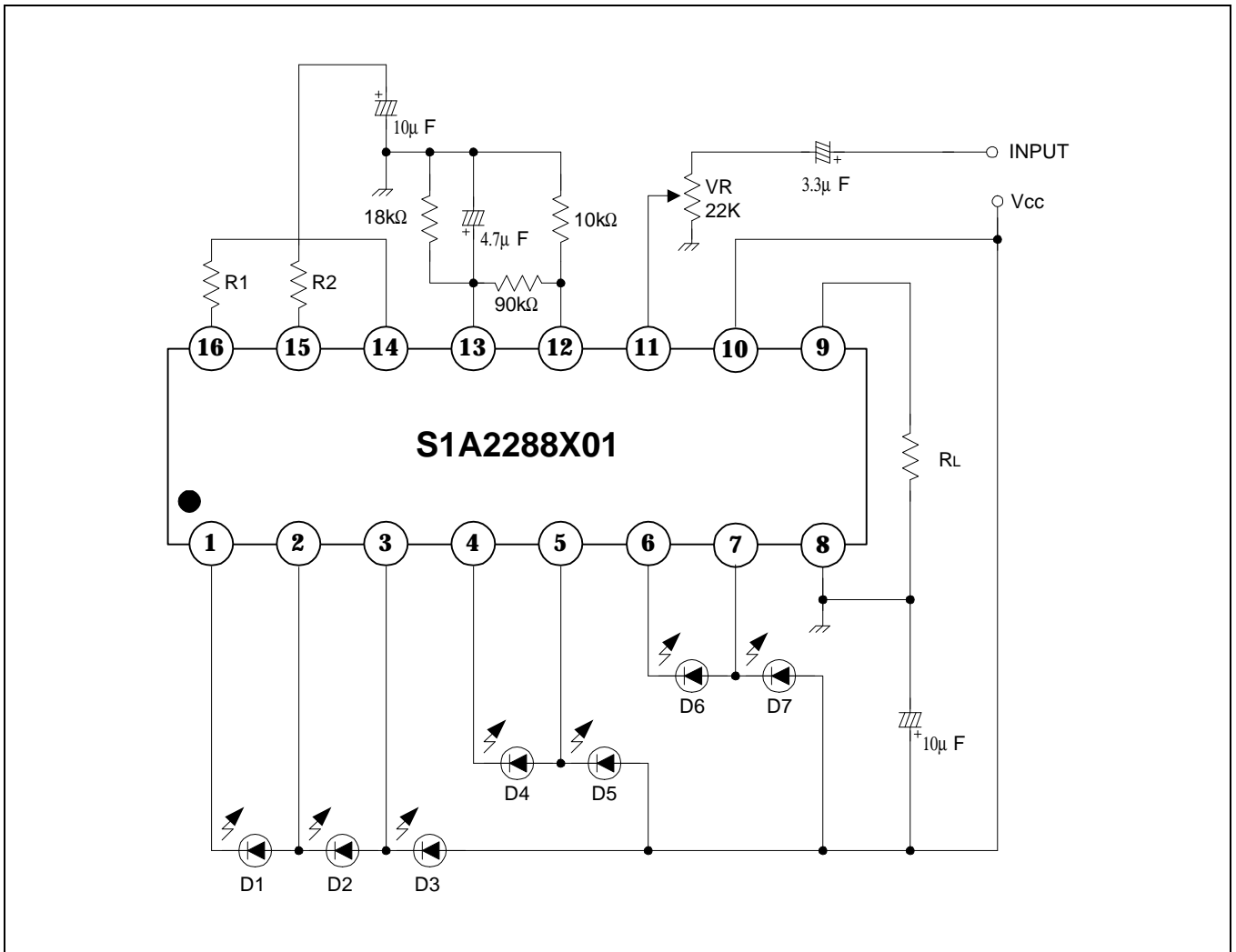
Characteristic	Symbol	Value	Unit
Supply Voltage	V_{CC}	18	V
Amp Input Voltage	V_I	$0 - V_{CC}$	V
D Terminal Output Current	I_D	30	mA
D Terminal Output Voltage	V_D	V_{CC}	V
Power Dissipation	$P_D (T_a \leq +70^\circ\text{C})$	650	mW
Operating Temperature	T_{OPR}	-20 – +70	°C
Storage Temperature	T_{STG}	-40 – +125	°C

ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Quiescent Circuit Current	I_{CCQ}	$R_1 = 4.7\text{k}\Omega, R_2 = \infty$	–	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}	$V_{CC} = 6.2 \sim 16\text{V}, R_L = 10\text{k}\Omega$	2.4	2.6	2.9	V
Signal Detection Output High Level	$V_{OH} (DET)$	$R_L = 10\text{k}\Omega$	10	10.3	–	V
Output Current 1	I_{O1}	$R_1 = 10\text{k}\Omega, R_2 = \infty$	4.2	7.1	10.0	mA
Output Current 2	I_{O2}	$R_1 = 10\text{k}\Omega, R_2 = 22\text{k}\Omega$	6.3	10.6	15.0	mA
Output Leakage Current	I_{LEK}	$R_1 = 4.7\text{k}\Omega, R_2 = \infty$	–	–	20	μA
Comparator on Level	$V_{CL} (ON) 1$	$V_{CC} = 6.2\text{V} - 16\text{V}$ $V_{CL} (ON) 5$ shall be taken for 0dB.	-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	$V_{CL} (ON) 5$	$V_{CC} = 6.2\text{V} - 16\text{V},$ $V_{REF} = 2.4 - 2.9\text{V}$	1.2	1.3	1.45	V

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

TEST CIRCUIT



NOTES