



# SG240128D ( 240 DOTS X 128 DOTS )

## FEATURES

- NO BUILT-IN CONTROLLER
- 3.3V / 5.5V POWER SUPPLY
- 1/128 DUTY CYCLE
- 4-BIT PARALLEL INTERFACE

## MECHANICAL DATA

ITEM	DIMENSIONS	UNIT
Module Size (W x H x T)	144.0 x 104.0 x 10.3 ( 15.1 LED )	mm
Viewing Area ( W x H )	114.0 x 64.0	mm
Active Area ( W x H )	107.95 x 57.55	mm
Dot Size ( W x H )	0.40 x 0.40	mm
Dot Pitch ( W x H )	0.45 x 0.45	mm

## INTERFACE PIN CONNECTIONS

NO.	SYMBOL	LEVEL	FUNCTION
1	FLM	H	Frame Start Signal
2	M	H/L	Control Signal For AC Driving
3	LP	H→L	Common Driver Data Shift Signal
4	CP	H→L	Clock Pulse For Segment Shift Register
5	V <sub>DD</sub>	5V	Power Supply Voltage
6	V <sub>SS</sub>	0V	Power Supply Ground
7	V <sub>EE</sub>	-	Power Supply Voltage For LCD
8	DB0	H/L	Data Bit0
9	DB1	H/L	Data Bit1
10	DB2	H/L	Data Bit2
11	DB3	H/L	Data Bit3
12	V <sub>o</sub>	-	Contrast Adjustment Voltage
13	NC	-	No Connection

## ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	MIN.	TYP.	MAX.	UNIT
Supply Voltage For Logic	V <sub>DD</sub> -V <sub>SS</sub>	0	-	7	V
Supply Voltage For LCD Drive	V <sub>DD</sub> -V <sub>o</sub>	0	-	28	V
Input Voltage	V <sub>I</sub>	V <sub>SS</sub>	-	V <sub>DD</sub>	V

## ELECTRICAL CHARACTERISTICS

ITEM	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT	
Supply Voltage For Logic	V <sub>DD</sub> -V <sub>SS</sub>	-	2.7	5	5.5	V	
LCD Supply Voltage	V <sub>DD</sub> -V <sub>o</sub>	V <sub>DD</sub> =5V Ta=25	16.9	18	19.2	V	
Supply Current	I <sub>DD</sub>	V <sub>DD</sub> =5V	-	15	24	mA	
Input Voltage	"HIGH" Level	V <sub>IH</sub>	-	2.2	-	V <sub>DD</sub>	V
	"LOW" Level	V <sub>IL</sub>	-	-	-	0.6	V
Output Voltage	"HIGH" Level	V <sub>OH</sub>	-	2.4	-	V	V
	"LOW" Level	V <sub>OL</sub>	-	-	-	0.4	V

## EXTERNAL DIMENSIONS

