



SG12232M (122 DOTS X 32 DOTS)

FEATURES

- ◆ BUILT-IN CONTROLLER (SBN1661 OR EQUIVALENT)
- ◆ +5 V POWER SUPPLY
- ◆ 1/32 DUTY CYCLE
- ◆ 8-BIT PARALLEL INTERFACE

MECHANICAL DATA

ITEM	DIMENSIONS	UNIT
Module Size (W x H x T)	84.0 x 44.0 x 8.8 (12.7 LED)	mm
Viewing Area (W x H)	60.5 x 18.5	mm
Active Area (W x H)	53.64 x 15.64	mm
Dot Size (W x H)	0.40 x 0.45	mm
Dot Pitch (W x H)	0.44 x 0.49	mm

INTERFACE PIN CONNECTIONS

NO.	SYMBOL	LEVEL	FUNCTION
1	V _{SS}	0V	Power Supply Ground
2	V _{DD}	5V	Power Supply Voltage
3	V _O	-	Contrast Adjustment Voltage
4	A _O	H/L	Data Type Select Signal
5	E1	H→L	Chip Select Signal For IC1
6	E2	H→L	Chip Select Signal For IC2
7	NC	-	No Connection
8	NC	-	No Connection
9	R/W	H/L	H : Read / L : Write
10~17	DB0~DB7	H/L	Data Bus Line
18	/RES	L	Reset Signal
19	A	4.2V	LED Power (+)
20	K	0V	LED Power (-)

ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	MIN.	TYP.	MAX.	UNIT
Supply Voltage For Logic	V _{DD} -V _{SS}	0	-	7	V
Supply Voltage For LCD Drive	V _{DD} -V _O	0	-	12	V
Input Voltage	V _I	V _{SS}	-	V _{DD}	V

ELECTRICAL CHARACTERISTICS

ITEM	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Voltage For Logic	V _{DD} -V _{SS}	-	4.5	5	5.5	V
Supply Voltage For LCD	V _{DD} -V _O	V _{DD} =5V Ta=25°C	4.4	4.8	5.2	V
Supply Current	I _{DD}	V _{DD} =5V	-	2.5	4.5	mA
Input Voltage	"HIGH" Level	V _{IH}	-	2.2	-	V _{DD} V
	"LOW" Level	V _{IL}	-	-	-	0.6 V
Output Voltage	"HIGH" Level	V _{OH}	-	2.4	-	V
	"LOW" Level	V _{OL}	-	-	-	0.4 V

EXTERNAL DIMENSIONS

