



FEATURES

- ◆ NO BUILT-IN CONTROLLER
- ◆ +5.0V POWER SUPPLY
- ◆ 1/128 DUTY CYCLE
- ◆ 8-BIT PARALLEL INTERFACE

MECHANICAL DATA

ITEM	DIMENSIONS	UNIT
Module Size (W x H x T)	91.8 x 74.0 x 10.0	mm
Viewing Area (W x H)	83.2 x 54.0	mm
Active Area (W x H)	79.17 x 46.05	mm
Dot Size (W x H)	0.30 x 0.30	mm
Dot Pitch (W x H)	0.33 x 0.36	mm

INTERFACE PIN CONNECTIONS

NO.	SYMBOL	LEVEL	FUNCTION
1	FLM	H	Frame Start Signal
2	V _{SS}	0V	Power Supply Ground
3	V _{DD}	5V	Power Supply Voltage
4	V ₀	→	Contrast Adjustment Voltage
5	/WR	L	Write Signal
6	/RD	L	Read Signal
7	A ₀	H/L	Data Type Select
8	/CS	L	Chip Signal
9	V _{EE}	-	Power Supply Voltage For LCD
10	/RES	L	Reset Signal
11~18	DB0-DB7	H/L	Data Bus Line
19	BUSY	-	Busy Signal
20	INT	-	Interrupt Signal
21	A	5.0V	LED Power (+)
22	K	0V	LED Power (-)

ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	MIN.	TYP.	MAX.	UNIT
Supply Voltage For Logic	V _{DD} -V _{SS}	0	5	6.5	V
Supply Voltage For LCD Drive	V _{DD} -V ₀	0	13	17	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	
LCD Supply Voltage	V _{DD} -V ₀	V _{DD} =5V Ta=25°C	12.7	13	13.3	V	
Supply Current	I _{DD}	V _{DD} =5V	-	-	12	mA	
Input Voltage	"HIGH" Level	V _{IH}	-	2.2	-	V _{DD}	V
	"LOW" Level	V _{IL}	-	0	-	0.6	V
Output Voltage	"HIGH" Level	V _{OH}	-	2.4	-	V	V
	"LOW" Level	V _{OL}	-	-	-	0.4	V