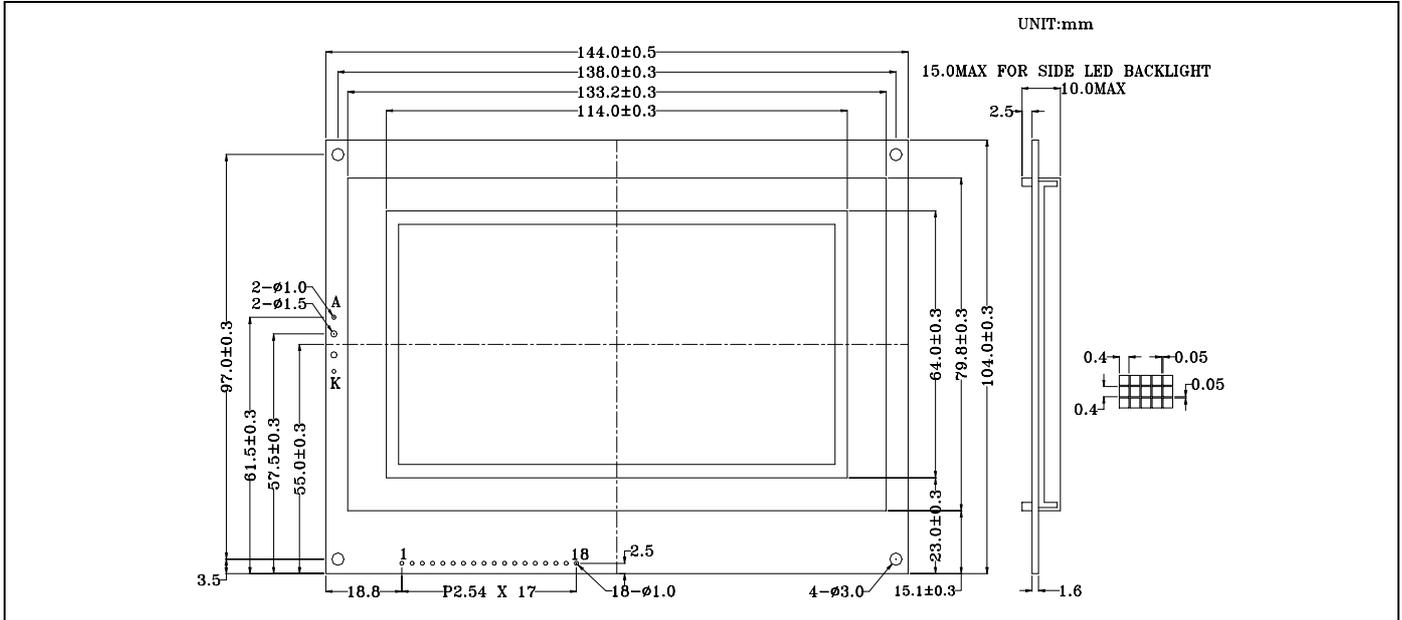




# JM240128A

240DOTS×128DOTS  
1/128 DUTY,1/12 BIAS

## 1 EXTERNAL DIMENSION



## 2 MECHANICAL DATA

ITEM	SPECIFICATION	UNIT
Module Size (W×H×T)	144.0×104.0×10.0(LED:15.0)	mm
Viewing Area (W×H)	114.0×64.0	mm
Number of Dots(W×H)	240×128	dots
Dot Pitch (W×H)	0.45×0.45	mm
Dot Size(W×H)	0.4×0.4	mm

## 5 ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	MIN.	MAX.	UNIT
Supply Voltage	V <sub>dd</sub>	0.3	7.0	V
LCD Supply Voltage	V <sub>ee</sub>	V <sub>dd</sub> -28	V <sub>dd</sub> -8	V
Input Voltage	V <sub>r</sub>	-0.3	V <sub>dd</sub> +0.3	V
Operating Temperature	T <sub>op</sub>	0	50	°C
Storage Temperature	T <sub>stg</sub>	-20	70	°C

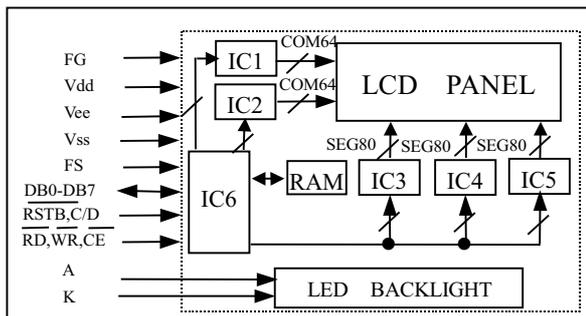
## 3 PIN CONNECTIONS

PIN	SYMBOL	SIGNAL DESCRIPTION
1	FG	Frame GND
2	V <sub>ss</sub>	GND
3	V <sub>dd</sub>	Power Supply
4	V <sub>dd</sub>	Power Supply for LCD
5	WR	Write when "L"
6	RD	Read when "L"
7	CE	Enable when "L"
8		Register Select(L=DATA,H=Instruction)
9	RSTB	Reset Signal when "L"
10 to 17	DB0-DB7	Data Bus for 8bit Mode
18	FS	Select character style 6X8 or 8X8

## 6 ELECTRICAL CHARACTERISTICS(T<sub>a</sub>=25°C)

ITEM	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Voltage(logic)	V <sub>dd</sub> -V <sub>ss</sub>	-	4.5	5.0	5.5	V
Supply Current(logic)	I <sub>dd</sub>	V <sub>dd</sub> =5.0	-	9.5	-	mA
Driving Current(LCD)	I <sub>ee</sub>	V <sub>ee</sub> =-14.0	-	4.6	-	mA
Driving Voltage(LCD)	V <sub>dd</sub> -V <sub>ee</sub>	25°C	-	19	-	V
Input Voltage "H"	V <sub>IH</sub>	H	V <sub>dd</sub> -2.2	-	V <sub>dd</sub>	V
Input Voltage "L"	V <sub>IL</sub>	L	0	-	0.8	V
Output Voltage "H"	V <sub>OH</sub>	H	V <sub>dd</sub> -0.3	-	V <sub>dd</sub>	V
Output Voltage "L"	V <sub>OL</sub>	L	0	-	0.3	V

## 4 BLOCK DIAGRAM



## 7 SIDE LED BACKLIGHT CHARACTERS(T<sub>a</sub>=25°C)

PARAMETER	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Voltage	V <sub>LED</sub>	-	-	4.1	-	V
LED Forward Consumption Current	I <sub>f</sub>	T <sub>a</sub> =25°C V <sub>f</sub> =4.1V	-	110	-	mA
LED Allowable Dissipation	P <sub>d</sub>	-	-	460	-	mW