

OLED displays are self-illuminating and require no backlight for maximum visibility in all environments. They consume less power and are also significantly thinner compared to LCD displays.

We offer Character and Graphic OLED displays that can be replaced your current LCD. Read more on directly replace LCD



## CHARACTER

Character OLED is meant to display text / characters only.







For example, a 16X2 OLED would be capable of displaying 2 lines each having 16 Characters and a 20X2 OLED would display 4 lines with 20 characters each.

Our partner is a leading manufacturer of character OLED modules in Taiwan. We offer many standard sizes, including 8x1 characters OLED, 8x2 characters OLED, 16x2 character OLED, 16x4 characters LCD, 20x2 characters LCD, 20x4 characters OLED, 40x2 characters OLED and also provide customized OLED.

We cater to customers across the globe and offer various IC options of character fonts including English Font, Japanese Font, European Font, Cyrillic Font, Chinese (Simplified), Chinese (traditional), Arabic Font, Hebrew Font etc.

Our Character OLED is available in White and Yellow color options and offer Parallel or serial MPU interface (4 / 8-bit 6800 series parallel and I<sup>2</sup>C interface). Customers can easily upgrade their current STN displays to OLED as it offers better brightness, and consume less power.

Character OLED is suitable for meter devices, TPMS, POS system, handheld instruments, automotive application, medical instrument, etc.

Name	Format	Module Size (mm)	Active Area (mm)	Character Size (mm)	Interface	Controller	Product Flyer
BL1602AM	16x2	80.0x30.0	56.22x11.52	2.97x5.57	4/8 bit / I2C	HD44780/ST7066U	
BL1602BM	16x2	85.0x30.0	56.22x11.52	2.97x5.57	4/8 bit / I2C	HD44780/ST7066U	
BL1602DM	16x02	85.0x36.0	56.22x11.52	2.97x5.57	4/8 bit / I2C	HD44780/ST7066U	
BL1602HM	16x02	84.0x44.0	56.22x11.52	2.97x5.57	4/8 bit / I2C	HD44780/ST7066U	
BL2002AM	20x02	116.0x37.0	73.52x11.52	3.22x5.57	4/8 bit / I2C	HD44780/ST7066U	
BL2004AM	20x04	98.0x60.0	70.42x20.82	2.97x4.75	4/8 bit / I2C	HD44780/ST7066U	

# BL1602AM



## Feature

1. COG with SMT
2. 5.0 V single power supply (Typ.)
3. 5x7 dots with cursor
4. Built-in controller: Compatible with HD44780/ST7066U
5. Color: White/Yellow
6. Support MCU interfaces:
  - 4 / 8-bit 6800 series parallel interface (STD)
  - I<sup>2</sup>C interface (Option)
7. Operating temperatures: -40°C to 80°C
8. 4 sets of CGROM (hardware selectable)
  - ENGLISH/JAPANESE
  - ENGLISH/CYRILLIC
  - ENGLISH/EUROPEAN I
  - ENGLISH/EUROPEAN II



## Mechanical Data

Item	Standard Value	Unit
Module Dimension	80.0 x 36.0	mm
Active Area	56.22 x 11.52	mm
Dot Size	0.57 x 0.67	mm
Character Size	2.97 x 5.57	mm

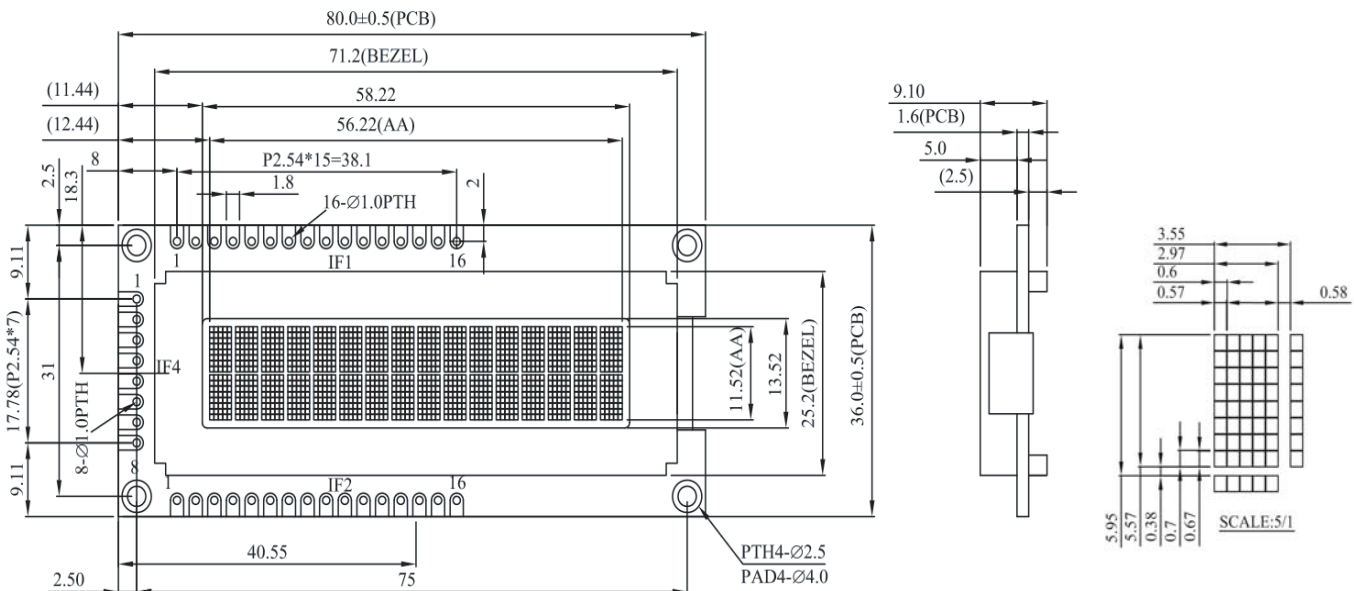
## Electronic Characteristics

Item	Symbol	Condition	Typical Value	Unit
Input Voltage	Vdd	Vdd=+5.0V	5.0	V
Supply Current	Idd	Vdd=+5.0V	30.0	mA
Life Time(White)		80cd/m <sup>2</sup>	70K	hrs
Life Time(Yellow)		80cd/m <sup>2</sup>	100K	hrs

## Pin Assignment

Pin	Symbol	Level	Description
1	GND	0V	Ground
2	VDD	5.0V	Supply voltage for logic .
3	NC	-	-
4	RS	H/L	H: DATA , L: Instruction code
5	R/W	H/L	H: Read (MPU←Module) L: Write (MPU→Module)
6	E	H→L	Chip enable signal
7~14	DB0	H/L	Data bit 0~7
15	NC	-	-
16	NC	-	-

## Dimension



# BL1602BM



## Feature

1. COG with SMT
2. 5.0 V single power supply (Typ.)
3. 5x7 dots with cursor
4. Built-in controller: Compatible with HD44780/ST7066U
5. Color: White/Yellow
6. Support MCU interfaces:
  - 4 / 8-bit 6800 series parallel interface (STD)
  - I<sup>2</sup>C interface (Option)
7. Operating temperatures: -40°C to 80°C
8. 4 sets of CGROM (hardware selectable)
  - ENGLISH/JAPANESE
  - ENGLISH/CYRILLIC
  - ENGLISH/EUROPEAN I
  - ENGLISH/EUROPEAN II



## Mechanical Data

Item	Standard Value	Unit
Module Dimension	85.0 x 30.0	mm
Active Area	56.22 x 11.52	mm
Dot Size	0.57 x 0.67	mm
Character Size	2.97 x 5.57	mm

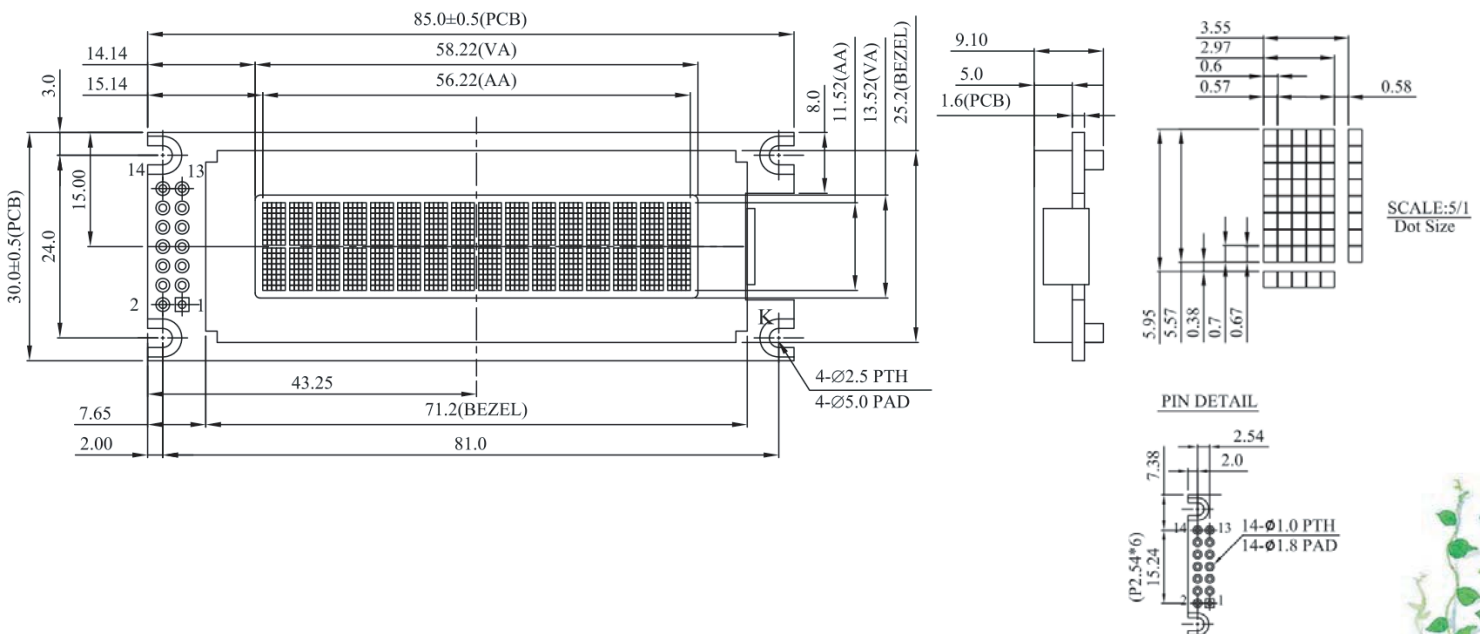
## Electronic Characteristics

Item	Symbol	Condition	Typical Value	Unit
Input Voltage	V <sub>dd</sub>	V <sub>dd</sub> =+5.0V	5.0	V
Supply Current	I <sub>dd</sub>	V <sub>dd</sub> =+5.0V	30.0	mA
Life Time(White)		80cd/m <sup>2</sup>	70K	hrs
Life Time(Yellow)		80cd/m <sup>2</sup>	100K	hrs

## Pin Assignment

Pin	Symbol	Level	Description
1	VDD	5.0V	Supply voltage for logic.
2	GND	0V	Ground
3	NC	-	-
4	RS	H/L	H:DATA , L:Instruction code
5	R/W	H/L	H:Read(MPU←Module) L:Write(MPU→Module)
6	E	H→L	Chip enable signal
7-14	DB0~7	H/L	Data bit 0~7
15	NC	-	-
16	NC	-	-

## Dimension



# BL1602DM



## Feature

1. COG with SMT
2. 5.0 V single power supply (Typ.)
3. 5x7 dots with cursor
4. Built-in controller: Compatible with HD44780/ST7066U
5. Color: White/Yellow
6. Support MCU interfaces:
  - 4 / 8-bit 6800 series parallel interface (STD)
  - I<sup>2</sup>C interface (Option)
7. Operating temperatures: -40°C to 80°C
8. 4 sets of CGROM (hardware selectable)
  - ENGLISH/JAPANESE
  - ENGLISH/CYRILLIC
  - ENGLISH/EUROPEAN I
  - ENGLISH/EUROPEAN II



## Mechanical Data

Item	Standard Value	Unit
Module Dimension	85.0 x 36.0	mm
Active Area	56.22 x 11.52	mm
Dot Size	0.57 x 0.67	mm
Character Size	2.97 x 5.57	mm

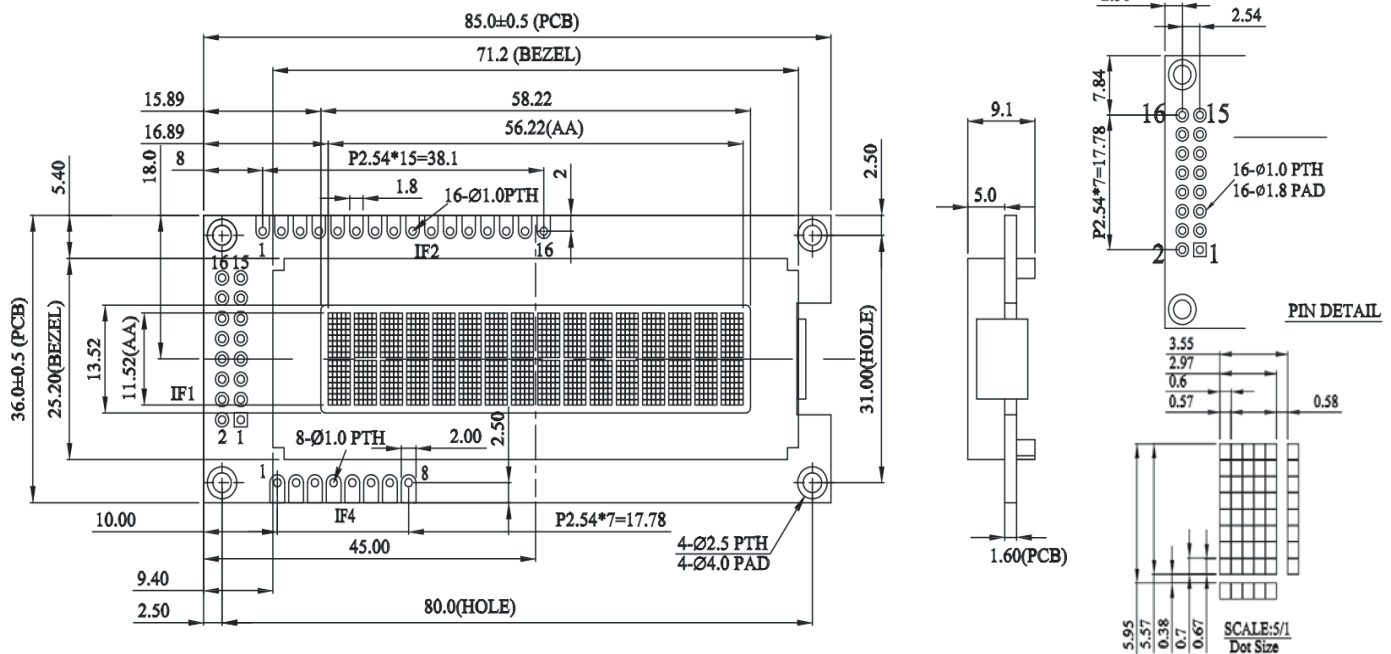
## Electronic Characteristics

Item	Symbol	Condition	Typical Value	Unit
Input Voltage	Vdd	Vdd=+5.0V	5.0	V
Supply Current	Idd	Vdd=+5.0V	30.0	mA
Life Time(White)		80cd/m <sup>2</sup>	70K	hrs
Life Time(Yellow)		80cd/m <sup>2</sup>	100K	hrs

## Pin Assignment

Pin	Symbol	Level	Description
1	GND	0V	Ground
2	VDD	5.0V	Supply voltage for logic .
3	NC	-	-
4	RS	H/L	H: DATA, L: Instruction code
5	R/W	H/L	H: Read (MPU←Module) L: Write (MPU→Module)
6	E	H→L	Chip enable signal
7~14	DB0~7	H/L	Data bit 0~7
15	NC	-	-
16	NC	-	-

## Dimension



# BL1602HM



## Feature

1. COG with SMT
2. 5.0 V single power supply (Typ.)
3. 5x7 dots with cursor
4. Built-in controller: Compatible with HD44780/ST7066U
5. Color: White/Yellow
6. Support MCU interfaces:
  - 4 / 8-bit 6800 series parallel interface (STD)
  - I<sup>2</sup>C interface (Option)
7. Operating temperatures: -40°C to 80°C
8. 4 sets of CGROM (hardware selectable)
  - ENGLISH/JAPANESE
  - ENGLISH/CYRILLIC
  - ENGLISH/EUROPEAN I
  - ENGLISH/EUROPEAN II



## Mechanical Data

Item	Standard Value	Unit
Module Dimension	84.0 x 44.0	mm
Active Area	56.22 x 11.52	mm
Dot Size	0.57 x 0.67	mm
Character Size	2.97 x 5.57	mm

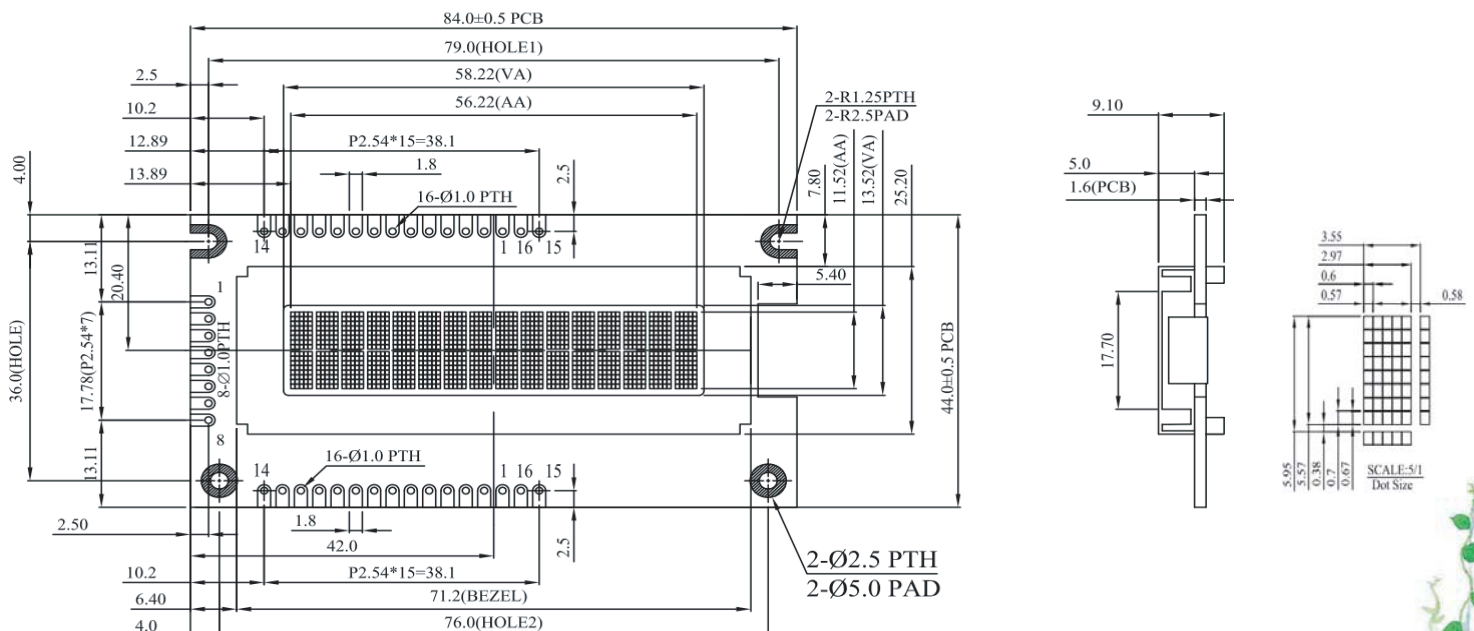
## Electronic Characteristics

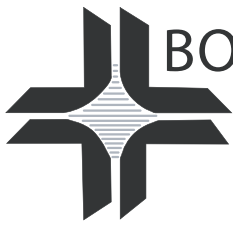
Item	Symbol	Condition	Typical Value	Unit
Input Voltage	V <sub>dd</sub>	V <sub>dd</sub> =+5.0V	5.0	V
Supply Current	I <sub>dd</sub>	V <sub>dd</sub> =+5.0V	30.0	mA
Life Time(White)		80cd/m <sup>2</sup>	70K	hrs
Life Time(Yellow)		80cd/m <sup>2</sup>	100K	hrs

## Pin Assignment

Pin	Symbol	Level	Description
1	GND	0V	Ground
2	VDD	5.0V	Supply voltage for logic .
3	NC	-	-
4	RS	H/L	H: DATA , L: Instruction code
5	R/W	H/L	H: Read (MPU←Module) L: Write (MPU→Module)
6	E	H→L	Chip enable signal
7~14	DB0~7	H/L	Data bit 0~7
15	NC	-	-
16	NC	-	-

## Dimension





# BL2002AM



## Feature

1. COG with SMT
2. 5.0 V single power supply (Typ.)
3. 5x7 dots with cursor
4. Built-in controller: Compatible with HD44780/ST7066U
5. Color: White/Yellow
6. Support MCU interfaces:
  - 4 / 8-bit 6800 series parallel interface (STD)
  - I<sup>2</sup>C interface (Option)
7. Operating temperatures: -40°C to 80°C
8. 4 sets of CGROM (hardware selectable)
  - ENGLISH/JAPANESE
  - ENGLISH/CYRILLIC
  - ENGLISH/EUROPEAN I
  - ENGLISH/EUROPEAN II



## Mechanical Data

Item	Standard Value	Unit
Module Dimension	116.0 x 37.0	mm
Active Area	73.52 x 11.52	mm
Dot Size	0.60 x 0.653	mm
Character Size	3.22 x 5.57	mm

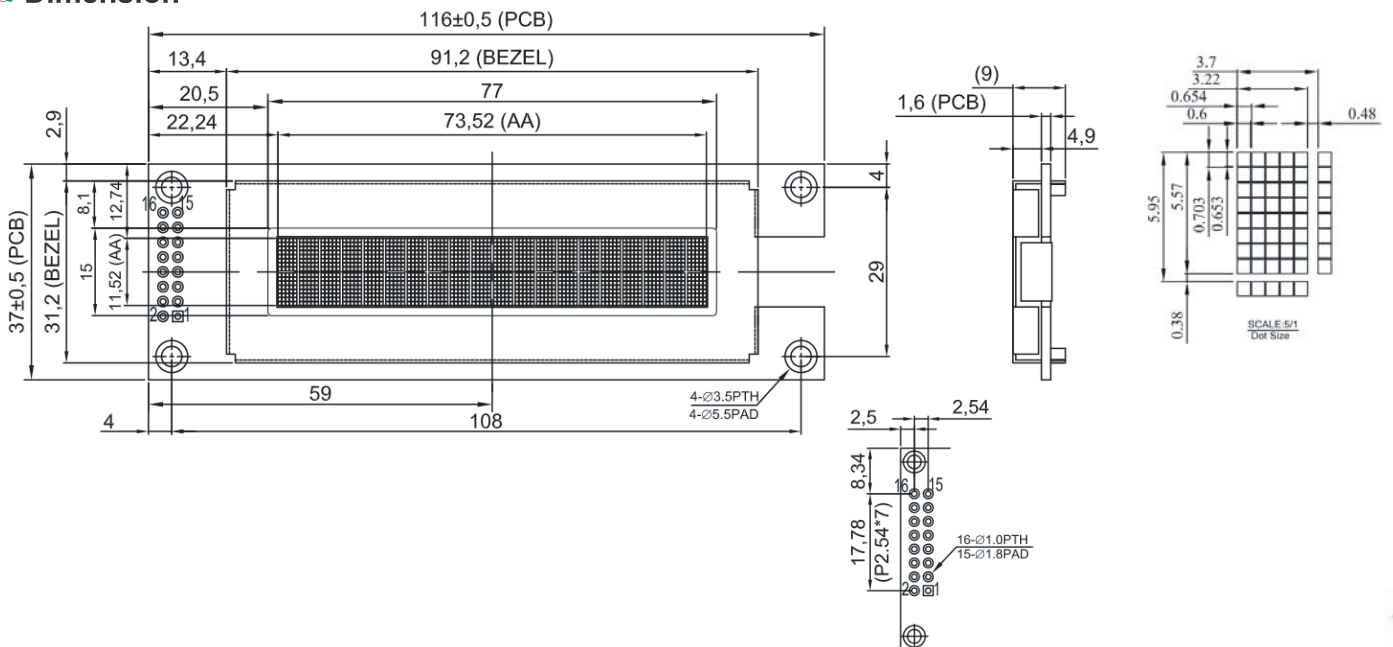
## Electronic Characteristics

Item	Symbol	Condition	Typical Value	Unit
Input Voltage	V <sub>dd</sub>	V <sub>dd</sub> =+5.0V	5.0	V
Supply Current	I <sub>dd</sub>	V <sub>dd</sub> =+5.0V	35.0	mA
Life Time(White)		80cd/m <sup>2</sup>	70K	hrs
Life Time(Yellow)		80cd/m <sup>2</sup>	100K	hrs

## Pin Assignment

Pin	Symbol	Level	Description
1	GND	0V	Ground
2	VDD	5.0V	Supply voltage for logic .
3	NC	-	-
4	RS	H/L	H: DATA , L: Instruction code
5	R/W	H/L	H: Read (MPU←Module) L: Write (MPU→Module)
6	E	H→L	Chip enable signal
7~14	DB0~7	H/L	Data bit 0~7
15	NC	-	-
16	NC	-	-

## Dimension



# BL2004AM



## Feature

1. COG with SMT
2. 5.0 V single power supply (Typ.)
3. 5x7 dots with cursor
4. Built-in controller: Compatible with HD44780/ST7066U
5. Color: White/Yellow
6. Support MCU interfaces:
  - 4 / 8-bit 6800 series parallel interface (STD)
  - I<sup>2</sup>C interface (Option)
7. Operating temperatures: -40°C to 80°C
8. 4 sets of CGROM (hardware selectable)
  - ENGLISH/JAPANESE
  - ENGLISH/CYRILLIC
  - ENGLISH/EUROPEAN I
  - ENGLISH/EUROPEAN II



## Mechanical Data

Item	Standard Value	Unit
Module Dimension	98.0 x 60.0	mm
Active Area	70.42 x 20.82	mm
Dot Size	0.55 x 0.55	mm
Character Size	2.95 x 4.75	mm

## Electronic Characteristics

Item	Symbol	Condition	Typical Value	Unit
Input Voltage	Vdd	Vdd=+5.0V	5.0	V
Supply Current	Idd	Vdd=+5.0V	40.0	mA
Life Time(White)		80cd/m <sup>2</sup>	70K	hrs
Life Time(Yellow)		80cd/m <sup>2</sup>	100K	hrs

## Pin Assignment

Pin	Symbol	Level	Description
1	GND	0V	Ground
2	VDD	5.0V	Supply voltage for logic.
3	NC	-	-
4	RS	H/L	H:DATA , L:Instruction code
5	R/W	H/L	H:Read(MPU←Module) L:Write(MPU→Module)
6	E	H→L	Chip enable signal
7-14	DB0~7	H/L	Data bit 0~7
15	NC	-	-
16	NC	-	-

## Dimension

