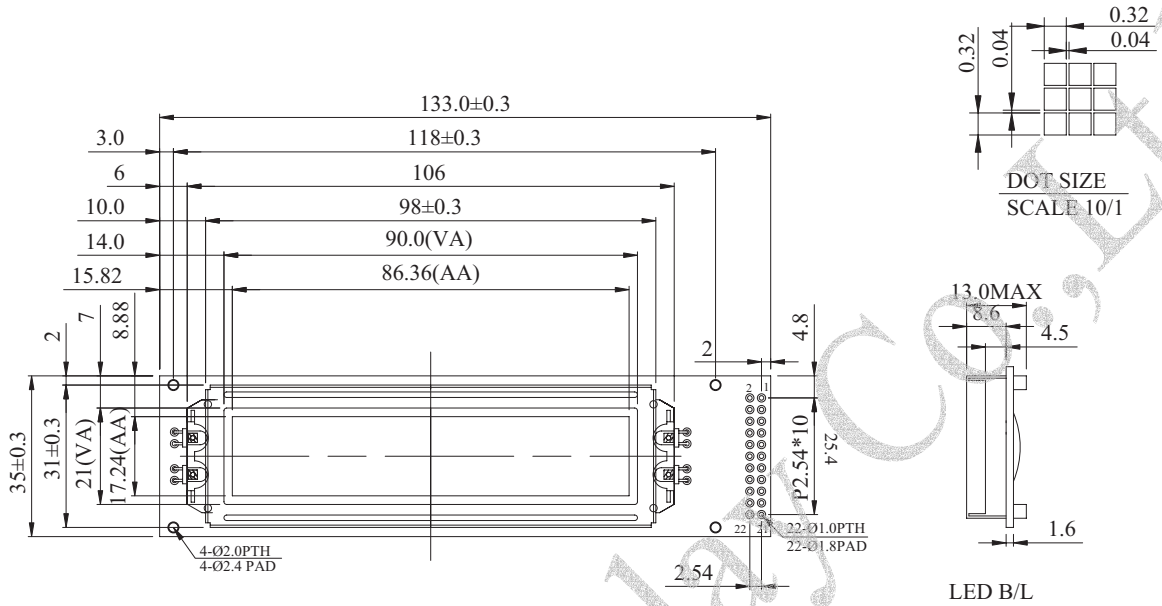


**WG24048A** Graphic 240x48 dots

**Dimension drawing**



Graphic type

**Feature**

1. Built-in controller sansung-(KS0107,KS0108 or Equivalent)
2. 1/48 duty cycle
3. +5V power supply
4. Built-in N/V
5. LED can be driven by pin21,pin22,or A and k

Pin NO.	Symbol	Function
1	VSS	GND
2	VDD	Power supply for Logic
3	VO	Power supply for LCD
4	D/I	H: Data L: Instruction
5	R/W	H: read data L: write data
6	E	Enable signal for chip
7	REST	Reset signal
8	DB	Data Bus line
9	DB	Data Bus line
10	DB	Data Bus line
11	DB	Data Bus line
12	DB	Data Bus line
13	DB	Data Bus line
14	DB	Data Bus line
15	DB	Data Bus line
16	CS	Chip Select signal for IC1
17	CS	Chip Select signal for IC2
18	CS	Chip Select signal for IC3
19	CS	Chip Select signal for IC4
20	VEE	Negative voltage output
21	A	Power supply for BLACKLIGHT
22	K	Power supply for BLACKLIGHT

**Mechanical Data**

Item	Standard Value	Unit
Module Dimension	133.0x35.0	mm
Viewing Area	90.0x21.0	mm
Dot Size	0.32x0.32	mm
Dot Pitch	0.36x0.36	mm
Mounting hole	118.0x31.0	mm

**Absolute Maximum Rating**

Item	Symbol	Standard Value			Unit
		min.	typ.	max.	
Power Supply	VDD-VSS	4.75	5.0	5.25	V
Input Voltage	VI	-0.3	---	VDD	V

Note: VSS=0 Volt , VDD=5.0 Volt .

**Electronical Characteristics**

Item	Symbol	Condition	Standard Value			Unit
			min.	typ.	max.	
Input Voltage	VDD	---	4.5	5.0	5.5	V
Supply Current	IDD	VDD=5V	6.0	8.0	12.0	mA
Recommended LC Driving Voltage for Normal Temp. Version module	VDD-VO	-20°C	---	---	11.3	V
		25°C	---	11.0	---	
		70°C	10.7	---	---	
CCFL Starting	VFLS	25°C	---	---	---	Vrms
CCFL Driving Voltage	VFLD	25°C	---	---	---	Vrms
CCFL Driving Current	IFLD	VFC=450Vrms 30KHZ	---	---	---	mA
LED Forward Voltage	VF	25°C	3.4	3.5	3.6	V
LED Forward Current	IF	25°C	64.0	80.0	120.0	mA
EL Power Supply Current	IEF	Vel=110VAC;400Hz	---	---	5.0	mA