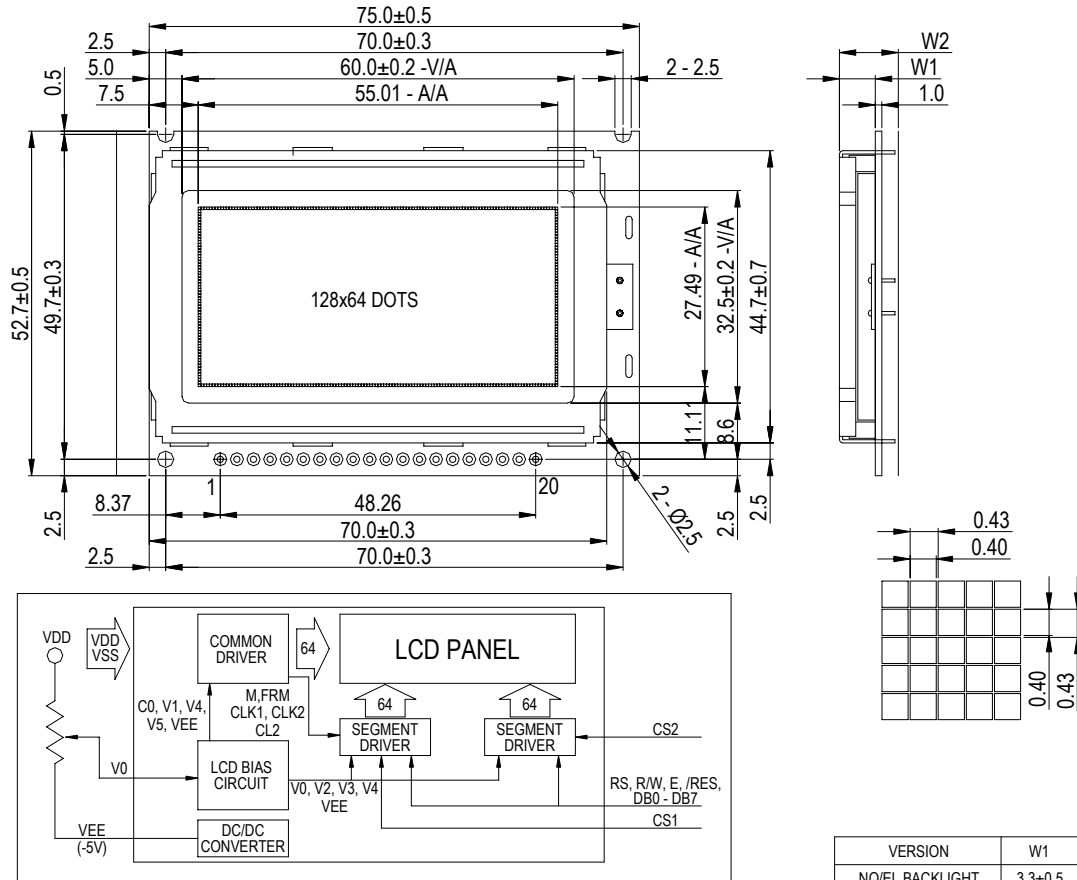




# STANDARD GRAPHICS MODULES

## G64128x02..... OUTLINE DIMENSION AND BLOCK DIAGRAM



The tolerance unless classified  $\pm 0.3$  mm

VERSION	W1	W2
NO/EL BACKLIGHT	3.3±0.5	6.8 MAX
LED BACKLIGHT	5.5±0.5	9.0 MAX

PIN ASSIGNMENT		
Pin No.	Symbol	Function
1	VDD	Supply Terminal
2	VSS	Ground Terminal
3	V0	Power Supply for LCD Driver
4	DB0	Data Bus Line
5	DB1	Data Bus Line
6	DB2	Data Bus Line
7	DB3	Data Bus Line
8	DB4	Data Bus Line
9	DB5	Data Bus Line
10	DB6	Data Bus Line
11	DB7	Data Bus Line
12	CS1	Select IC U2
13	CS2	Select IC U4
14	/RST	Reset Signal
15	R/W	Read / Write Selection
16	D/I	Data or Instruction
17	E	Enable Signal
18	VEE	Output Voltage
19	SLA	Led Backlight Power Supply
20	SLK	Led Backlight Ground

NOTE :  
1. BACKLIGHT - SIDE LED BACKLIGHT

ABSOLUTE MAXIMUM RATING						
Item	Symbol	Conditions	Min.	Max.	Unit	
Power Supply Voltage	Vdd-Vss	-	-0.3	7.0	V	
Input Voltage	Vin	-	Vss	Vdd	V	
NORMAL	OPERATING TEMPERATURE	Topr	Normal	0	+50	°C
	STORAGE TEMPERATURE	Tstg	Normal	-20	+70	°C
WIDE	OPERATING TEMPERATURE	Topr	Normal	-20	+70	°C
	STORAGE TEMPERATURE	Tstg	Normal	-30	+80	°C

ELECTRICAL CHARACTERISTIC (Vdd = + 5v, Ta = 25°C)						
Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Logic Supply Voltage	Vdd	-	4.5	5.0	5.5	V
"H" Input Voltage	V <sub>HI</sub>	-	0.7Vdd	-	Vdd	V
"L" Input Voltage	V <sub>LI</sub>	-	0	-	0.3Vdd	V
"H" Output Voltage	V <sub>OHI</sub>	-	2.4	-	-	V
"L" Output Voltage	V <sub>OLI</sub>	-	-	-	0.4	V
Module Supply Current	I <sub>DD</sub>	-	-	3.1	3.5	mA
LCD Driving Voltage	V <sub>LCO</sub>	Vdd-Vo	7.9	8.3	8.7	V

BACKLIGHT OPTION					
LED COLOR	OPTION	CONDITION	FORWARD CURRENT ( mA )		
			MIN	TYP	MAX
YELLOW GREEN	YES	V <sub>led</sub> = 5.0V R <sub>led</sub> = 23.5 ohm	-	40	-
WHITE	NO	-	-	-	-
BLUE	NO	-	-	-	-
AMBER	NO	-	-	-	-
RED	NO	-	-	-	-
CCFL	NO	-	-	-	-
EL	NO	-	-	-	-

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