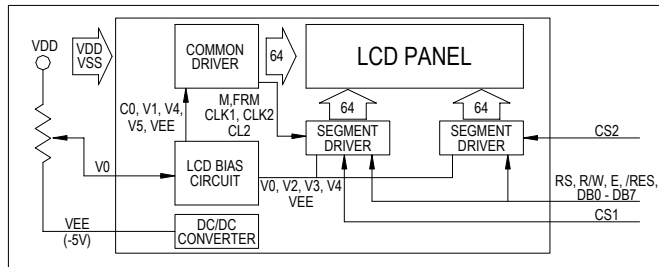
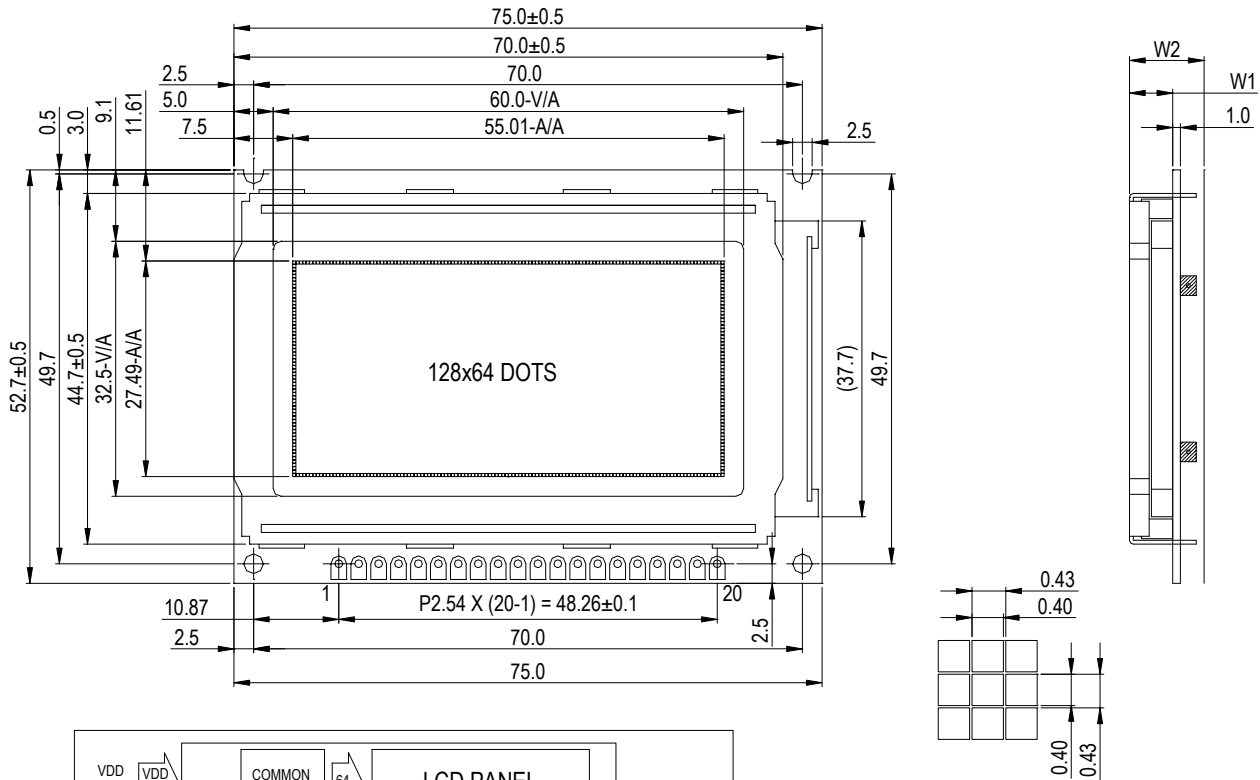




STANDARD GRAPHICS MODULES

G64128X12..... OUTLINE DIMENSION AND BLOCK DIAGRAM



VERSION	W1	W2
NO/EL BACKLIGHT	3.3±0.5	6.8 MAX
LED BACKLIGHT	5.5±0.5	9.5 MAX

The tolerance unless classified ± 0.3 mm

PIN ASSIGNMENT		
Pin No.	Symbol	Function
1	V _{DD}	Ground Terminal
2	V _{SS}	Supply Terminal
3	V ₀	Contrast Adjust
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	Chip Select IC U1
13	/CS2	Chip Select IC U2
14	RST	Reset
15	R/W	Data read / write
16	D/ I	Command / Data select
17	E	Chip enable signal
18	V _{SS}	Supply Terminal
19	A	Power supply for LED B/L (+)
20	K	Power supply for LED B/L (-)

NOTE :
1. BACKLIGHT - SIDE LED BACKLIGHT

ABSOLUTE MAXIMUM RATING

Item	Symbol	Conditions	Min.	Max.	Unit
Power Supply Voltage	V _{DD-VSS}	25°C	-0.3	7.0	V
Input Voltage	V _{in}	-	V _{SS}	V _{DD}	V
NORMAL	OPERATING TEMPERATURE	T _{opr}	Normal	0	+50 °C
	STORAGE TEMPERATURE	T _{stg}	Normal	-20	+70 °C
WIDE	OPERATING TEMPERATURE	T _{opr}	Normal	-20	+70 °C
	STORAGE TEMPERATURE	T _{stg}	Normal	-30	+80 °C

ELECTRICAL CHARACTERISTIC (V_{DD} = + 5v, T_a = 25°C)

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Logic Supply Voltage	V _{DD}	-	4.5	5.0	5.5	V
"H" Input Voltage	V _{ih}	-	0.7V _{DD}	-	V _{DD}	V
"L" Input Voltage	V _{il}	-	0	-	0.3V _{DD}	V
"H" Output Voltage	V _{oh}	-	-	-	-	V
"L" Output Voltage	V _{ol}	-	-	-	-	V
Module Supply Current	I _{DD}	-	-	3.1	3.5	mA
LCD Driving Voltage	V _{CD}	V _{DD-V0}	8.1	8.3	8.5	V

BACKLIGHT OPTION

LED COLOR	OPTION	CONDITION	FORWARD CURRENT (mA)		
			MIN	TYP	MAX
YELLOW GREEN	YES	V _{led} = 5.0V R _{led} = 4.1 ohm	-	100	-
WHITE	YES	V _{led} = 5.0V R _{led} = 15 ohm	-	60	-
BLUE	NO	-	-	-	-
AMBER	NO	-	-	-	-
RED	NO	-	-	-	-
CCFL	NO	-	-	-	-
EL	NO	-	-	-	-

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