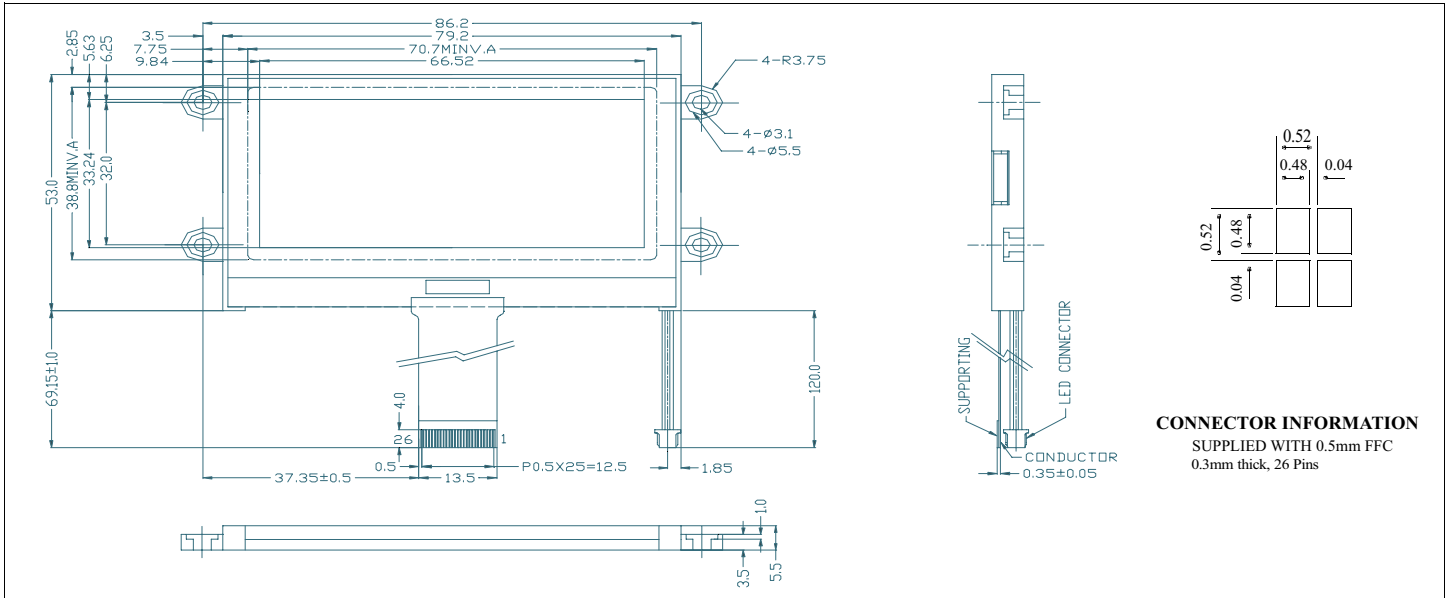


# HDG12864L-4

# Chip On Glass technology

## Dimensional Drawing

128 X 64 Dots Graphic with LED Backlight



**CONNECTOR INFORMATION**  
 SUPPLIED WITH 0.5mm FFC  
 0.3mm thick, 26 Pins

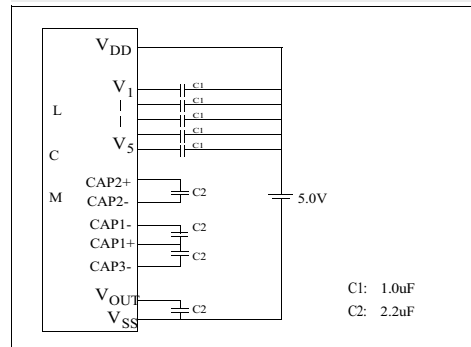
### Features

- Back light ..... White or Yellow/Green LED
- Connection ..... Flat Flex Cable
- Options.....STN/FSTN, 6/12 o'clock View  
 Extended/Normal Temperature  
 Transflective or Reflective Polarizer
- Built-in Controller.....Epson SED1565 Series

### Physical Data

- Module Size.....93.2W x 53.0H x 5.5T mm
- Viewing Area Size.....70.7W x 38.8 mm
- Dot Pitch.....0.52W x 0.52H mm
- Dot Size.....0.48W x 0.48H mm

### Power Supply



### Absolute Maximum Ratings

PARAMETER	SYMBOL	MIN	MAX	UNIT
SUPPLY VOLTAGE	V <sub>DD</sub> -V <sub>SS</sub>	- 0.3	5.5	V
SUPPLY VOLTAGE FOR LCD	V <sub>DD</sub> -V <sub>L</sub>	0	16.0	V
INPUT VOLTAGE	V <sub>IN</sub>	- 0.3	V <sub>DD</sub>	V
OPERATING TEMPERATURE	T <sub>OP</sub>	-20	70	°C
STORAGE TEMPERATURE	T <sub>STG</sub>	-30	80	°C

### Electrical Characteristics (VDD=5.0±0.25V 25°C)

PARAMETER	SYM	MIN	TYP	MAX	UNIT
POWER SUPPLY VOLTAGE	V <sub>DD</sub>	3.0	5.0	5.5	V
INPUT HIGH VOLTAGE	V <sub>IH</sub>	0.7V <sub>DD</sub>	-	V <sub>DD</sub>	V
INPUT LOW VOLTAGE	V <sub>IL</sub>	-0.3	-	0.2V <sub>DD</sub>	V
POWER SUPPLY FOR LCD	V <sub>DD</sub> -V <sub>L</sub>		8.5		V
POWER SUPPLY CURRENT	I <sub>DD</sub>	-	7.45		mA
LED Forward Voltag ( White )	V <sub>F</sub>	3.2	3.5	3.8	V
( Yellow )		3.9	4.1	4.3	
LED Forward Curren ( White )	I <sub>F</sub>	-	-	135	mA
( Yellow )		-	90	150	
DRIVE METHOD		1/64 Duty			

### Pin Connections

PIN NO.	SYMBOL	FUNCTION
1	CS1	Chip Select Signal
2	RES	Reset Signal
3	A0	Control/Data Select Signal
4	R/W	Signal to select Read or Write
5	E	Enable Clock Input
6 - 13	D0-D7	Data Bus
14	V <sub>DD</sub>	Power supply for Logic
15	V <sub>SS</sub>	Ground
16	VOUT #	DC/DC Converter Output
17	CAP3+	DC/DC Voltage ConInverter capacitors
18	CAP1+	
19	CAP1-	
20	CAP2-	
21	CAP2+	LCD Driver Supply Voltages
22	V1	
23	V2	
24	V3	
25	V4	
26	V5	

#Has built-in inverter for negative power supply