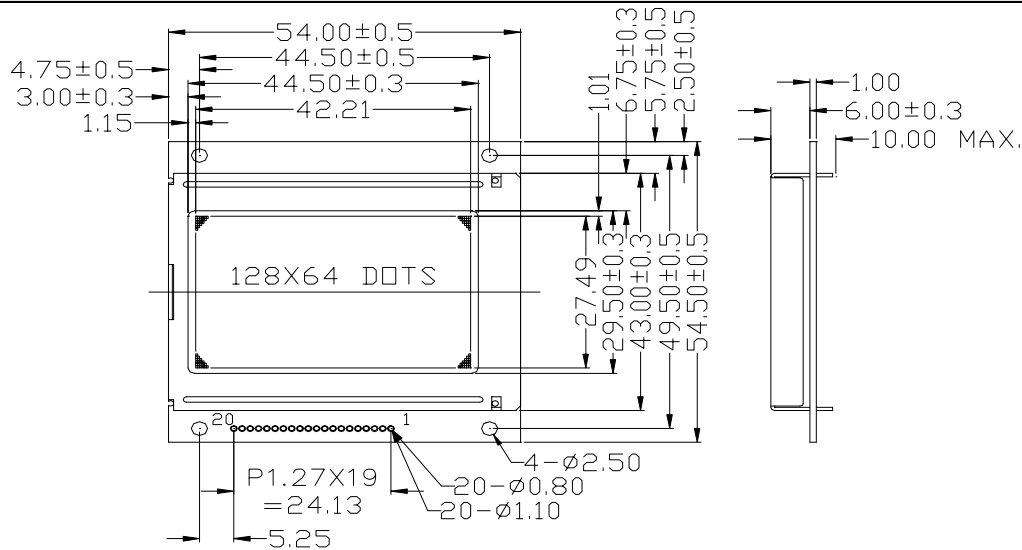


## Standard LCD module

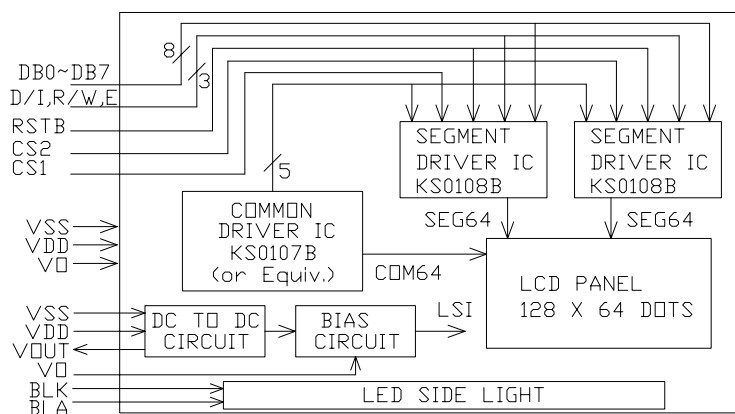
## MG12864-02

### OUTLINE DIMENSION

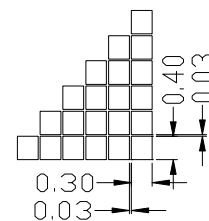


Tolerance: ± 0.20mm, unless otherwise specified.

### BLOCK DIAGRAM



### DISPLAY PATTERN



### MECHANICAL SPECIFICATION

Item	Dimensions(W)X(H)	Unit
Overall Size	54.0x54.5	MM
View Area	44.5x29.5	MM
Dot Size	0.30x0.40	MM
Dot Pitch	0.33x0.43	MM

### PIN ASSIGNMENT

Pin no	Symbol	Function
1	VSS	Power Supply(GND)
2	VDD	Power Supply(+)
3	VO	Contrast Adjust
4	D/I	Command data input
5	R/W	Data read / write
6	E	Chip enable signal
7~14	DB0~7	Data bus 0~7
15	CS1	Chip select signal for KS0108B(1)
16	CS2	Chip select signal for KS0108B(2)
17	RSTB	Reset signal
18	VOUT	Voltage booster output
19	BLK	Back light cathode
20	BLA	Back light anode

### ABSOLUTE MAXIMUM RATING

Item	Symbol	Condition	Min	Max	Unit
Supply for logic voltage	VDD	25	-0.3	7.0	V
LCD driving supply voltage	VDD-VO	25	-0.3	VDD+0.3	V
Input voltage	VI	25	-0.3	VDD+0.3	V

### ELECTRICAL CHARACTERISTICS

Item	Symbol	Condition	Min	Typical	Max	Unit
Supply voltage for logic	VDD	---	4.5	5.0	5.5	V
Supply current for logic	IDD	---	---	2.62	4.0	mA
Operation voltage for LCD	VDD-VO	0	12.6	13.3	14.0	V
		25	12.3	13.0	13.7	V
		50	12.1	12.8	13.5	V
Input voltage "H" level	VIH	---	0.7VDD	---	VDD	V
Input voltage "L" level	VIL	---	0	---	0.3VDD	V
Supply voltage for back light	VF	---	---	4.2	4.6	V
Supply current for back light	IF	VF=4.2V	---	350	600	mA

### REMARKS:

- LCD options: STN, FSTN.
- Back light Options: LED/EL back light feature.