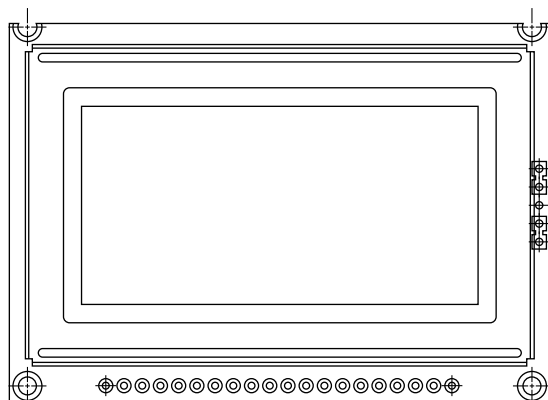


# 128 x 64 Graphic LCD



## FEATURES

- Type: graphic
- Display format: 128 x 64 dots
- Built-in controller: NT 7107, NT 7108
- Duty cycle: 1/64
- +5 V power supply
- N.V. built-in
- LCD-128H064S: Chinese character version
- LCD-128H064BP1: +3.3 V option
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)


**RoHS**  
COMPLIANT

MECHANICAL DATA		
ITEM	STANDARD VALUE	UNIT
Module dimension	75.0 x 52.7	mm
Viewing area	60.0 x 32.6	
Dot size	0.39 x 0.39	
Dot pitch	0.43 x 0.43	
Mounting hole	70.0 x 49.7	
Character size	n/a	

ABSOLUTE MAXIMUM RATINGS					
ITEM	SYMBOL	STANDARD VALUE			UNIT
		MIN.	TYP.	MAX.	
Power supply	$V_{DD}$ to $V_{SS}$	4.75	5.0	5.25	V
Input voltage	$V_I$	-0.3	-	$V_{DD}$	

## Note

- $V_{SS} = 0$  V,  $V_{DD} = 5.0$  V

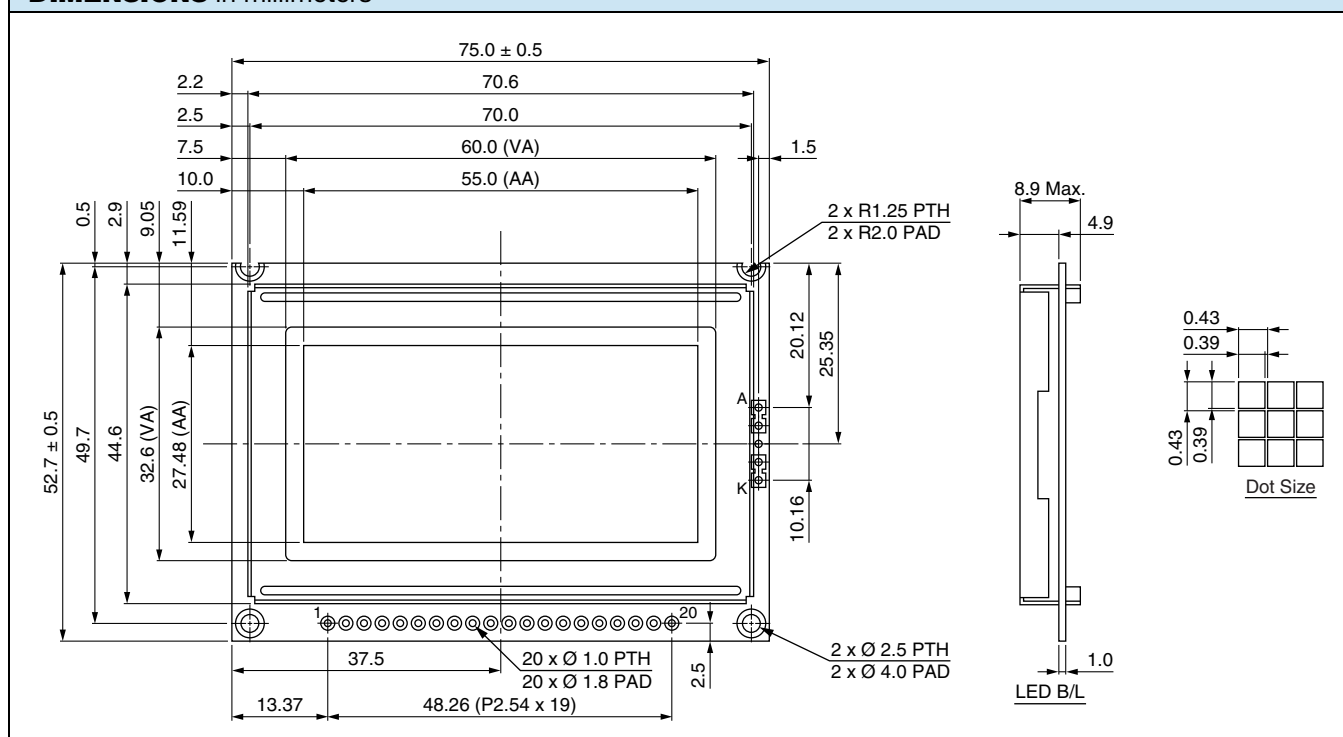
ELECTRICAL CHARACTERISTICS						
ITEM	SYMBOL	CONDITION	STANDARD VALUE			UNIT
			MIN.	TYP.	MAX.	
Input voltage	$V_{DD}$	L level	$0.7 V_{DD}$	-	$V_{DD}$	V
	$V_{IO}$	H level	0	-	$0.3 V_{DD}$	
Supply current	$I_{DD}$	$V_{DD} = +5$ V	-	4.0	5.2	mA
Recommended LC driving voltage for normal temperature version module	$V_{DD}$ to $V_0$	-20 °C	9.9	10.4	10.9	V
		0 °C	9.7	10.2	10.7	
		25 °C	7.5	8.0	8.5	
		50 °C	8.6	9.1	9.6	
		70 °C	8.4	8.9	9.4	
LED forward voltage	$V_F$	25 °C	-	4.2	4.6	V
LED forward current - edge	$I_F$	25 °C	-	100	150	mA
EL power supply current	$I_{EL}$	$V_{EL} = 110 V_{AC}$ , 400 Hz	-	-	5.0	mA

OPTIONS									
PROCESS COLOR						BACKLIGHT			
TN	STN GRAY	STN YELLOW	STN BLUE	FSTN B&W	STN COLOR	NONE	LED	EL	CCFL
-	x	x	x	x	-	x	x	x	-

For detailed information, please see the "Product Numbering System" document.

**INTERFACE PIN FUNCTION**

PIN NO.	SYMBOL	FUNCTION
1	$V_{DD}$	Power supply (+5 V)
2	GND	Power supply (ground)
3	$V_0$	Contrast adjustment
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 for IC1
13	CS2	Chip select for IC2
14	$\overline{RST}$	Reset signal
15	$R/\overline{W}$	Data read / write
16	$D/I$	Data / instruction
17	E	Enable signal
18	$V_{EE}$	Negative voltage output
19	A	Power supply for LED (+4.2 V)
20	K	Power supply for LED (0 V)

**DIMENSIONS** in millimeters




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