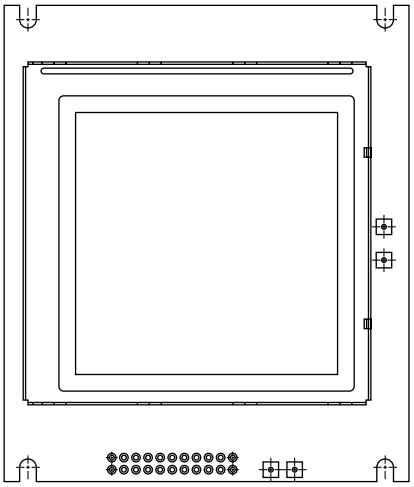
128 x 128 Graphic LCD



FEATURES

- Type: Graphic
- Display format: 128 x 128 dots
- Built-in controller: Toshiba T6963C
- Duty cycle: 1/128
- + 5 V power supply
- N.V. optional
- Compliant to RoHS directive 2002/95/EC

Pb-free
RoHS COMPLIANT

MECHANICAL DATA

ITEM	STANDARD VALUE	UNIT
Module Dimension	85.0 x 100.0	mm
Viewing Area	62.0 x 62.0	
Dot Size	0.40 x 0.40	
Dot Pitch	0.43 x 0.43	
Mounting Hole	75.0 x 94.0	
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	-	-	0.3 V_{DD}	V
Supply Current	I_{DD}	V_{DD} = + 5 V	-	1.5	-	mA
Recommended LC Driving Voltage for Normal Temperature Version Module	V_{DD} to V_0	- 20 °C	-	18.0	-	V
		0 °C	-	17.5	-	
		25 °C	-	17.0	-	
		50 °C	-	16.0	-	
		70 °C	-	15.5	-	
LED Forward Voltage	V_F	25 °C	-	4.2	4.6	V
LED Forward Current	I_F	25 °C	-	500	-	mA
EL Power Supply Current	I_{EL}	V_{EL} = 110 V_{AC}, 400 Hz	-	-	5.0	mA

OPTIONS

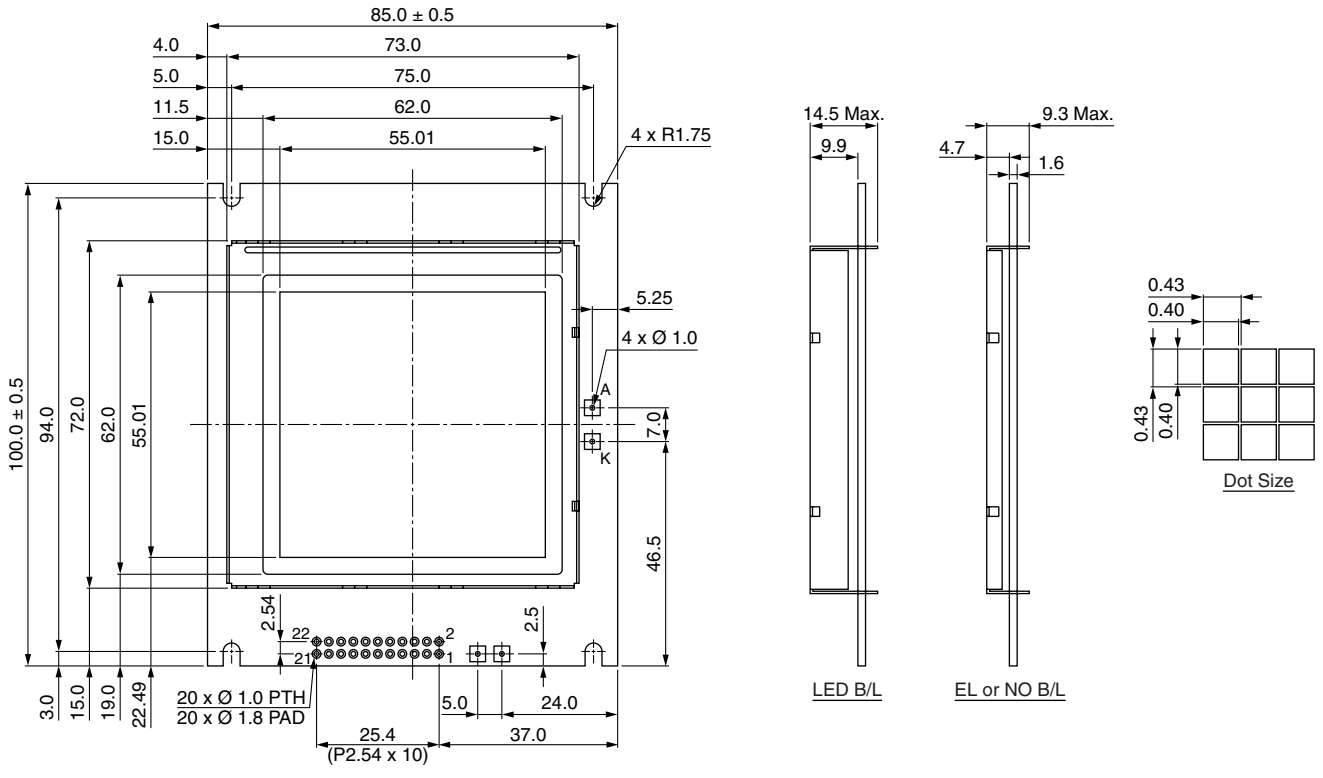
PROCESS COLOR						BACKLIGHT			
TN	STN Gray	STN Yellow	STN Blue	FSTN B&W	STN Color	None	LED	EL	CCFL
	x	x	x	x			x	x	

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

INTERFACE PIN FUNCTION

PIN NO.	SYMBOL	FUNCTION
1	FGND	Frame ground
2	GND	Power supply (ground)
3	V_{DD}	Power supply (+ 5 V)
4	V_0	Contrast adjustment
5	$\overline{WR}$	Data write
6	$\overline{RD}$	Data read
7	$\overline{CE}$	Chip enable
8	C/$\overline{D}$	Command/data select
9	NC	No connection
10	$\overline{RST}$	Reset signal
11	DB0	Data bus line
12	DB1	Data bus line
13	DB2	Data bus line
14	DB3	Data bus line
15	DB4	Data bus line
16	DB5	Data bus line
17	DB6	Data bus line
18	DB7	Data bus line
19	FS	Font selection
20	NC/V_{EE}	NC/negative voltage output
21	A	Power supply for LED B/L (+ 4.2 V)
22	K	Power supply for LED B/L (0 V)

DIMENSIONS in millimeters



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