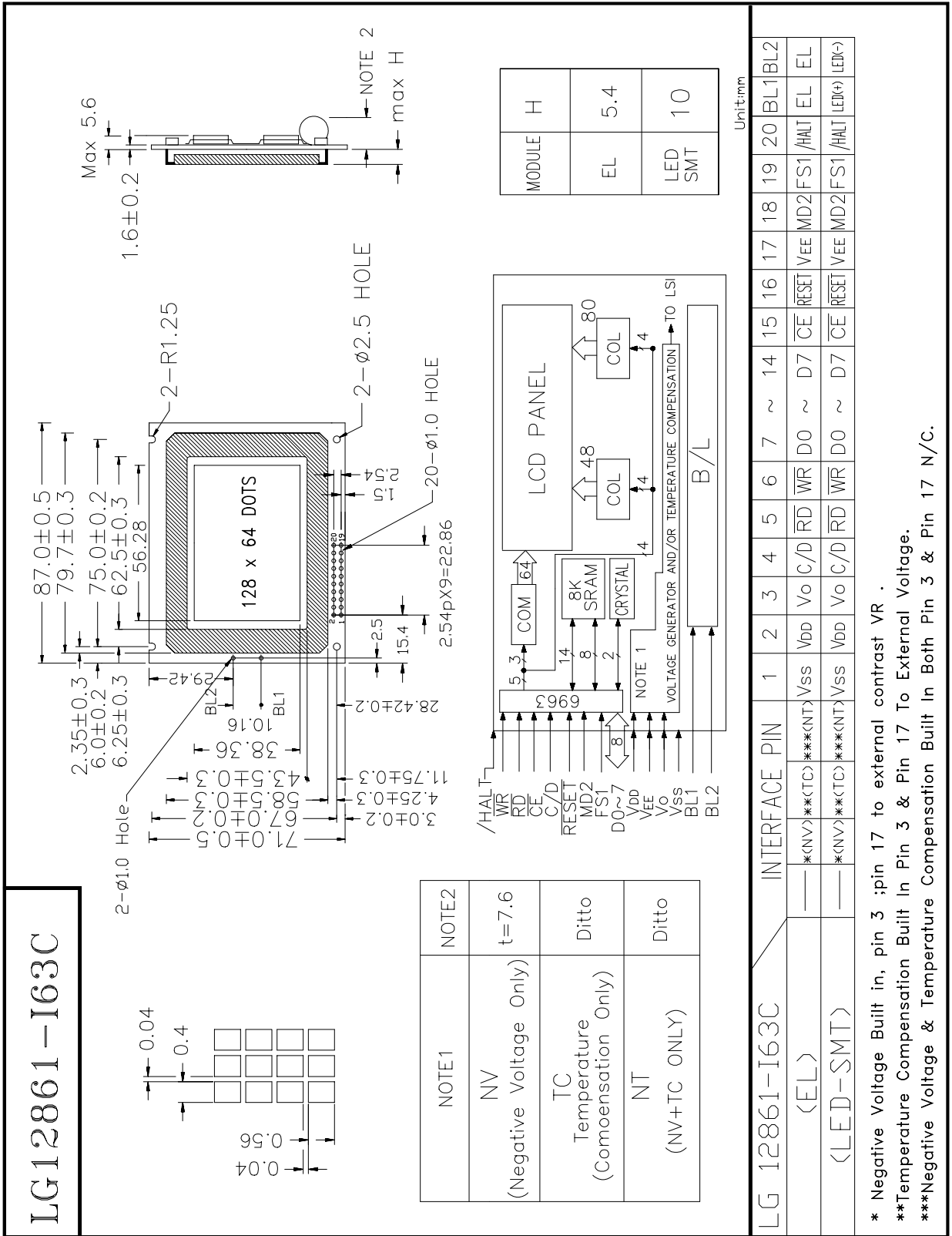


1. LCM Drawing



2. Electrical spec

LG12861-I63C

1 2 8 X 6 4 Dots 1 / 6 4 D U T Y

ELECTRICAL CHARACTERISTICS

T_a = 25°C V_{DD} = 5.0 ± 0.25 v

Input "High" Voltage (V_{IH}) 3.8 V min

Input "Low " Voltage (V_{IL}) 1.0 V max

APPLICABLE FOR -LOP

STN
TEMPERATURE
NORMA WIDE

Supply Current, (I _{DD})Typ., mA	7	7
Supply Current, (I _{EE})Typ., mA	2	2
Supply Voltage, (V _{EE})Typ., V	-15	-15
Recommend LCD drive Voltage: (V _{DD} -V _O) at T _a = -20°C, Volts	N/A	17.8
T _a = 0°C	16.2	16.2
T _a = 25°C	14.6	14.6
T _a = 50°C	13.5	13.5
T _a = 70°C	N/A	12.4

ABSOLUTE MAXIMUM RATINGS

	<u>NORMAL</u>		<u>WIDE</u>	
	<u>MIN</u>	<u>MAX</u>	<u>MIN</u>	<u>MAX</u>
Input Voltage (V _I) V	0	V _{DD}	0	V _{DD}
Supply for Logic (V _{DD} -V _{SS}) V	0	7	0	7
Supply for LCD (V _{DD} -V _O) V	0	24	0	24
Operating Temperature T _{OP} , °C	0	+50	-20	+70
Storage Temperature T _{ST} , °C	-20	+70	-30	+80

OPTION

BACKLIGHT

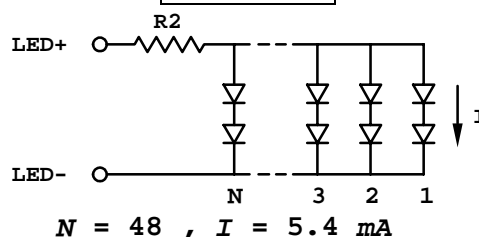
- BEXX -- EL
- BLSXX -- LED SMT

INPUT VOLTAGE & CURRENT

100 V_{RMS} (400-800) Hz; 12.0mA
+ 5V DC; 260 mA R2 = 4.5 Ohm 1 W

*R2: Suggest BL current limit resistor on customer board

SMT LED



N = 48 , I = 5.4 mA

----- Single +5V Operation -----

SINGLE +5V OPERATION only

-- not available --

TEMPERATURE COMPENSATION

-- not available --

LG12861-I63C

1 2 8 X 6 4 Dots 1 / 6 4 D U T Y

ELECTRICAL CHARACTERISTICS

$T_a = 25^{\circ}\text{C}$ $V_{DD} = 5.0 \pm 0.25 \text{ v}$

Input "High" Voltage (V_{IH}) 3.8 V min

Input "Low " Voltage (V_{IL}) 1.0 V max

APPLICABLE FOR -LNY

Supply Current, (I_{DD})Typ., mA

Supply Current, (I_{EE})Typ., mA

Supply Voltage, (V_{EE})Typ., V

Recommend LCD drive Voltage:

	<u>STN</u>	
	<u>TEMPERATURE</u>	
	<u>NORMAL</u>	<u>WIDE</u>
Supply Current, (I_{DD})Typ., mA	7	7
Supply Current, (I_{EE})Typ., mA	2	2
Supply Voltage, (V_{EE})Typ., V	-10	-10
Recommend LCD drive Voltage:		
($V_{DD}-V_O$)at $T_a = -20^{\circ}\text{C}$,Volts	N/A	14.3
$T_a = 0^{\circ}\text{C}$	14.0	14.0
$T_a = 25^{\circ}\text{C}$	13.5	13.5
$T_a = 50^{\circ}\text{C}$	13.0	13.0
$T_a = 70^{\circ}\text{C}$	N/A	12.8

ABSOLUTE MAXIMUM RATINGS

	<u>NORMAL</u>		<u>WIDE</u>	
	<u>TEMPERATURE</u>		<u>TEMPERATURE</u>	
	<u>MIN</u>	<u>MAX</u>	<u>MIN</u>	<u>MAX</u>
Input Voltage (V_I) V	0	V_{DD}	0	V_{DD}
Supply for Logic ($V_{DD}-V_{SS}$) V	0	7	0	7
Supply for LCD ($V_{DD}-V_O$) V	0	24	0	24
Operating Temperature T_{OP} , $^{\circ}\text{C}$	0	+50	-20	+70
Storage Temperature T_{ST} , $^{\circ}\text{C}$	-20	+70	-30	+80

OPTION

BACKLIGHT

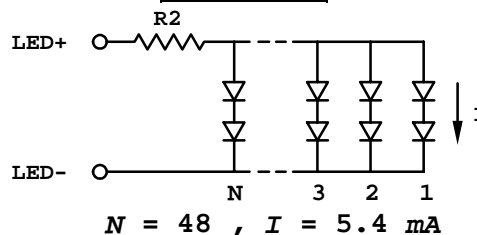
- BEXX -- EL
- BLSXX -- LED SMT

INPUT VOLTAGE & CURRENT

100 V_{RMS} (400-800) Hz; 12.0mA
 + 5V DC; 260 mA $R_2 = 4.5 \text{ Ohm}$ 1 W

* R_2 : Suggest BL current limit resistor on customer board

SMT LED



----- Single +5V Operation -----

SINGLE +5V OPERATION only

- VNV
- VEE self-generate --

TEMPERATURE COMPENSATION

- not available --

LG12861-I63C

1 2 8 X 6 4 Dots 1 / 6 4 D U T Y

ELECTRICAL CHARACTERISTICS

$T_a = 25^\circ\text{C}$ $V_{DD} = 5.0 \pm 0.25 \text{ V}$

Input "High" Voltage (V_{IH})

3.8 V min

Input "Low" Voltage (V_{IL})

1.0 V max

APPLICABLE FOR -LEP

Supply Current, (I_{DD}) Typ., mA

STN
TEMPERATURE
NORMAL WIDE
7 7

Supply Current, (I_{EE}) Typ., mA

2 2

Supply Voltage, (V_{EE}) Typ., V

-10 -10

Recommend LCD drive Voltage:

($V_{DD} - V_O$) at $T_a = -20^\circ\text{C}$, Volts

N/A 15.0

$T_a = 0^\circ\text{C}$

14.2 14.2

$T_a = 25^\circ\text{C}$

13.9 13.9

$T_a = 50^\circ\text{C}$

13.4 13.4

$T_a = 70^\circ\text{C}$

N/A 12.9

ABSOLUTE MAXIMUM RATINGS

	<u>NORMAL</u> <u>TEMPERATURE</u>		<u>WIDE</u> <u>TEMPERATURE</u>	
	<u>MIN</u>	<u>MAX</u>	<u>MIN</u>	<u>MAX</u>
Input Voltage (V_I) V	0	V_{DD}	0	V_{DD}
Supply for Logic ($V_{DD} - V_{SS}$) V	0	7	0	7
Supply for LCD ($V_{DD} - V_O$) V	0	24	0	24
Operating Temperature T_{OP} , $^\circ\text{C}$	0	+50	-20	+70
Storage Temperature T_{ST} , $^\circ\text{C}$	-20	+70	-30	+80

OPTION

BACKLIGHT

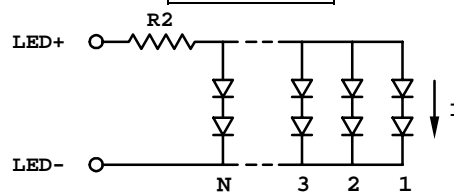
-BEXX -- EL
-BLSXX -- LED SMT

INPUT VOLTAGE & CURRENT

100 V_{RMS} (400-800) Hz; 12.0mA
+ 5V DC; 260 mA $R_2 = 4.5 \text{ Ohm}$ 1 W

* R_2 : Suggest BL current limit resistor on customer board

SMT LED



$N = 48$, $I = 5.4 \text{ mA}$

----- Single +5V Operation -----

SINGLE +5V OPERATION only

-VNV
-- VEE self-generate --

TEMPERATURE COMPENSATION

-- not available --