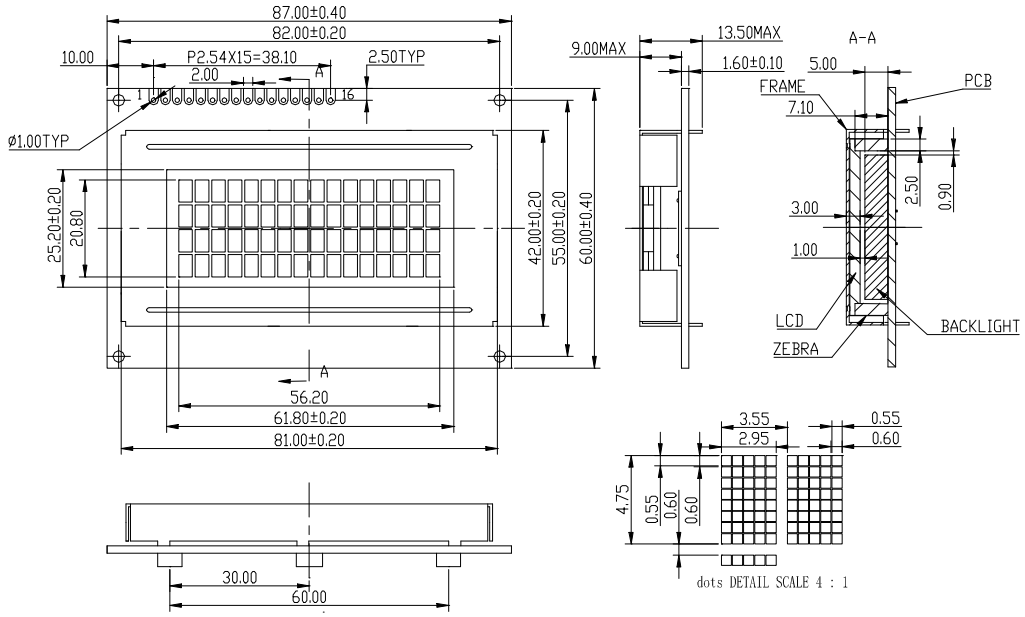
TSM1604B-J01

16Characters 4 line * Controller LSI built-in * +5V singel power supply

STN, Yellow-Green, Positive, Transflective

EXTERNAL DIMENSIONS AND DISPLAY PATTERN

EXTERNAL DIMENSIONS



MECHANICAL DATA(Nominal dimensions)

Module size	87.0Wx60.0Hx14.0D mm
Effective display area	61.7Wx25.2H mm
Character size(5x8dots)	2.95x4.75 mm
Character pitch	3.55x5.35 mm
Dot size	0.56x0.56 mm

ABSOLUTE MAXIMUM RATINGS

	min	max
Power supply for logic (Vdd - Vss)	0	7.0V
Power supply for LCD drive (Vdd-Vo)	0	5.0V
Input voltage (Vi)	Vss	Vdd
Operating temperature (Ta)	-20	+70
Storage temperature (Tstg)	-30	+80

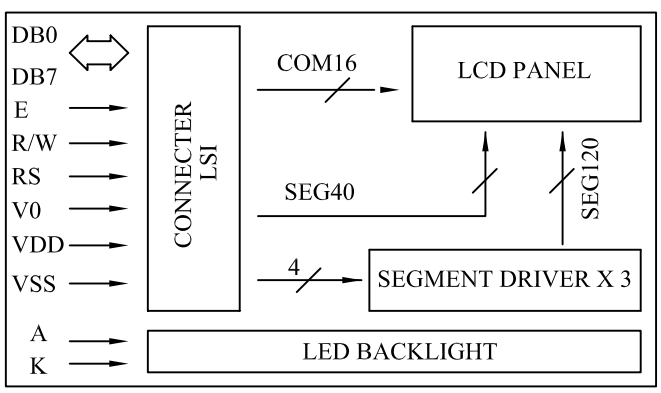
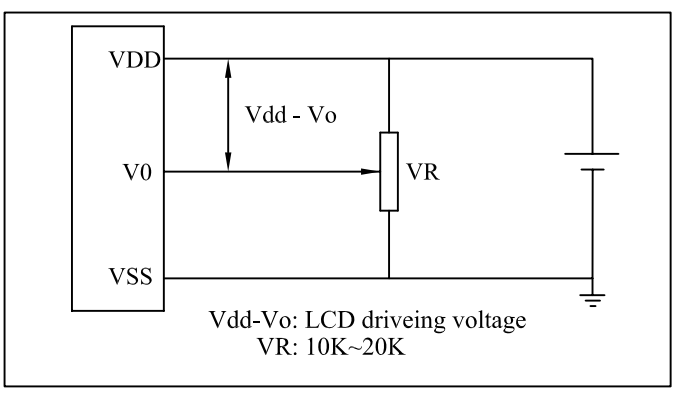
ELECTRICAL CHARACTERISTICS

Ta=25°C,Vdd=5.0±0.25V	min	max
Input "high" voltage (Vih)	0.7Vdd	Vdd
Input "low" voltage (Vil)	-0.3	0.2Vdd
Output "high" voltage (Voh)	0.7Vdd	Vdd
Output "low" voltage (Vol)	0	0.2Vdd
Drive method	1/16 Duty , 1/5 Bias	

PIN CONNECTION

Pin No.	symbel	lever	Function
1	Vss	---	0V
2	Vdd	---	+5V
3	Vo	---	---
4	RS	H/L	L:Instruction code input H:Data input
5	R/W	H/L	L:Data write H:Data read
6	E	H.H-L	Enable singal
7	D0	H/L	Data bus line
8	D1	H/L	
9	D2	H/L	
10	D3	H/L	
11	D4	H/L	
12	D5	H/L	
13	D6	H/L	
14	D7	H/L	
15	A	---	Power supply for LED
16	K	---	Power supply for LED

BLOCK DIAGRAM



POWER SUPPLY