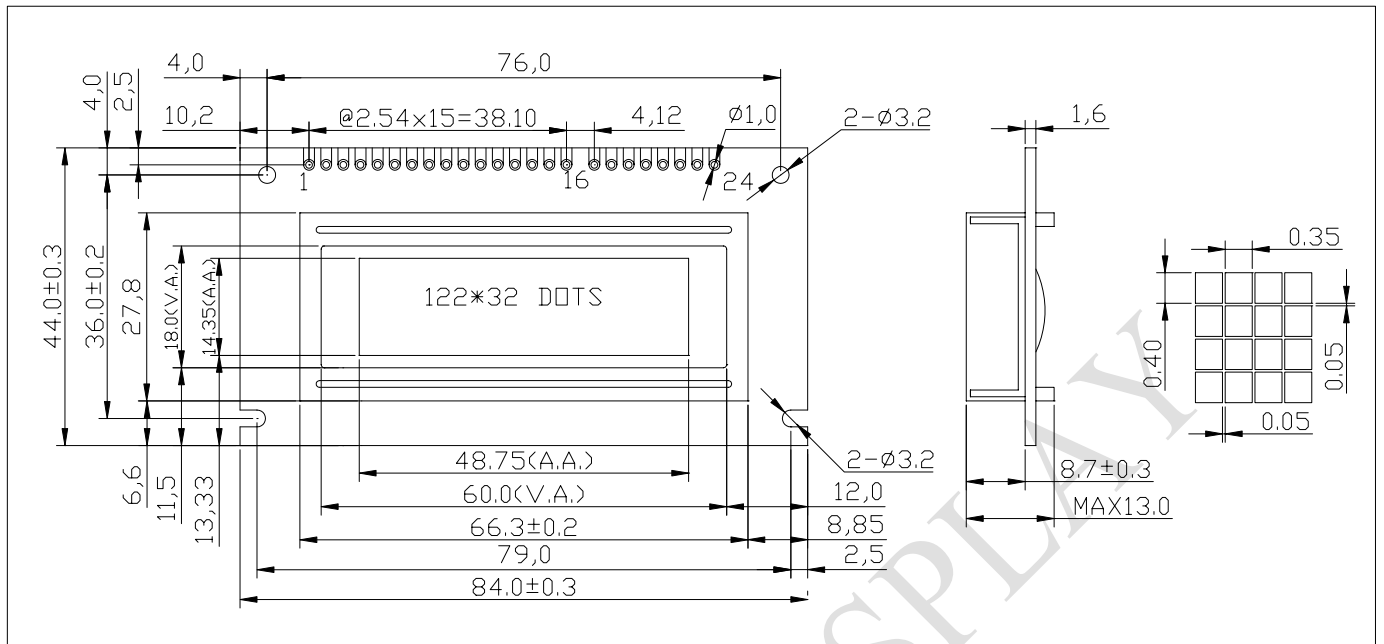




PIN CONNECTIONS

Pin	Symbol	Level	Function
1/17	V _{SS}	0V	GND
2/18	V _{DD}	+5V	Power supply for logic
3/19	V _O	-	No connection
4/22	A0 (CS)	H/L (H)	“H” Data, “L” Instruction code (Chip enable signal for serial mode)
5/21	R/W (SID)	H/L	“H” Read, “L” Write (Data for serial mode)
6/20	E (SCLK)	H/L	Enable signal (Serial clock)
7 14	DB0 DB7	H/L	Data bus line
15/23	LEDA	+5V	Power supply for LED backlight
16/24	LEDK	0V	

NOTES:

1. Built-in ST7920 controller
2. Yellow green/blue mode optional
3. 5V/3.3V power supply optional
4. Parallel mode/serial mode optional

MECHANICAL DATA

Item	Nominal Dimensions	Unit
Module Size (W x H x T)	84.0X44.0X13.0	mm
Viewing Area (W x H)	60.0X18.0	mm
Dot Pitch (W x H)	0.40X0.45	mm
Dot Size (W x H)	0.35X0.40	mm

ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Min.	Max.	Unit
Supply Voltage (Logic)	V _{DD} -V _{SS}	-0.3	7.0	V
Supply Voltage (LCD)	V _{DD} -V _O	-0.3	13.5	V
Input Voltage	V _I	-0.3	V _{DD} +0.3	V
Operating Temp.	T _{OPR}	-20	70	
Storage Temp.	T _{STG}	-30	80	

ELECTRICAL CHARACTERISTICS (V_{DD}=5.0V, T_a=25)

Item	Symbol	Min.	Typ.	Max.	Unit
Input High Voltage	V _{IH}	2.0	-	V _{DD}	V
Input Low Voltage	V _{IL}	-0.3	-	0.6	V
Output High Voltage	V _{OH}	2.4	-	V _{DD}	V
Output Low Voltage	V _{OL}	0	-	0.4	V
Supply Current	I _{DD}	-	0.4	0.8	mA
LCD Driving Voltage	V _{DD} -V _O	-	5.0	-	V

LED BACKLIGHT SPECIFICATIONS (T_a=25)

Item	Forward Voltage	Forward Current
YELLOW-GREEN	4.1V	120mA
White	3.1V	15mA