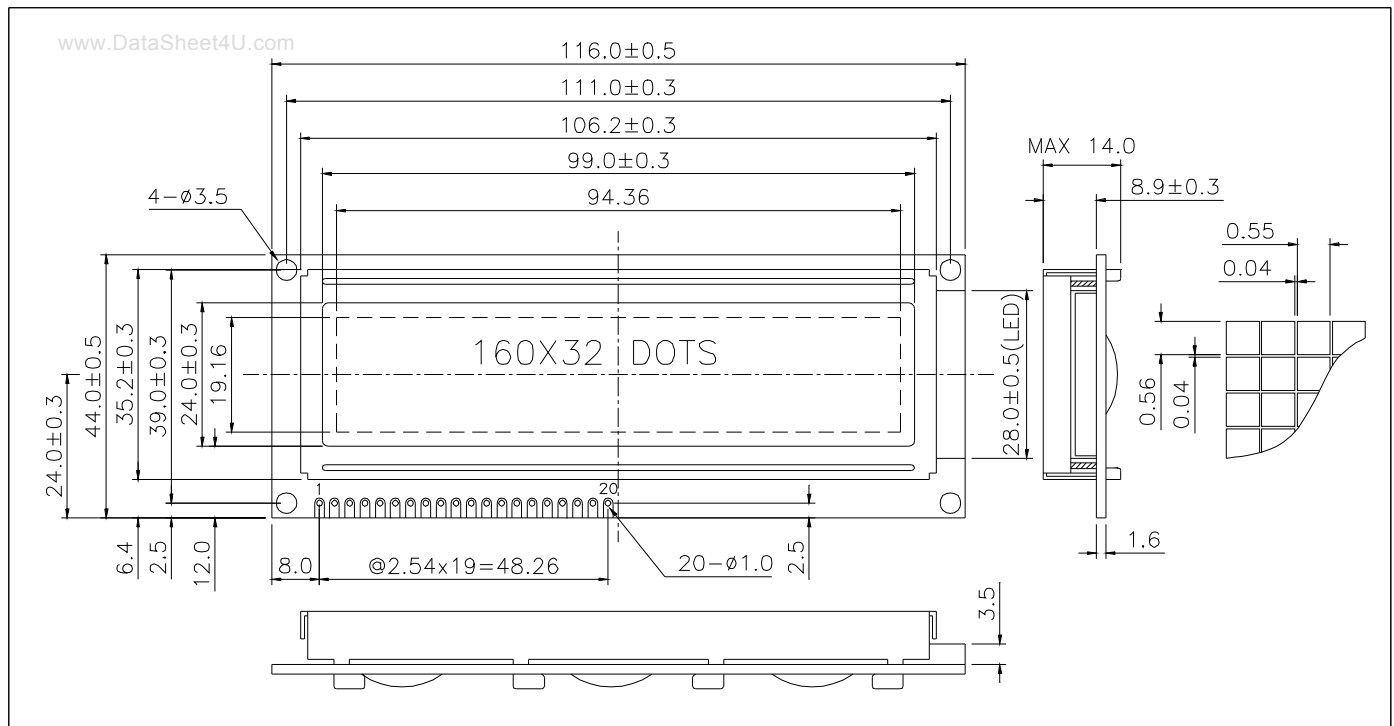


160 x 32 dots + white led backlight



ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Min.	Max.	Unit
Supply Voltage(Logic)	V _{DD} - V _{SS}	-0.3	5.5	V
Supply Voltage(LCD)	V _O - V _{SS}	-0.3	7.0	V
Input Voltage	V _I	-0.3	V _{DD} + 0.3	V
Operating Temp.	T _{opr}	-20	70	°C
Storage Temp.	T _{stg}	-30	80	°C

MECHANICAL DATA

Item	Nominal Dimensions	Unit
Module Size (W x H x T)	116.0 x 44.0 x 14.0	mm
Viewing Area (W x H)	99.0 x 24.0	mm
Dot Pitch (W x H)	0.59 x 0.60	mm
Dot Size(W x H)	0.55 x 0.56	mm
Weight	Approx. 70	g

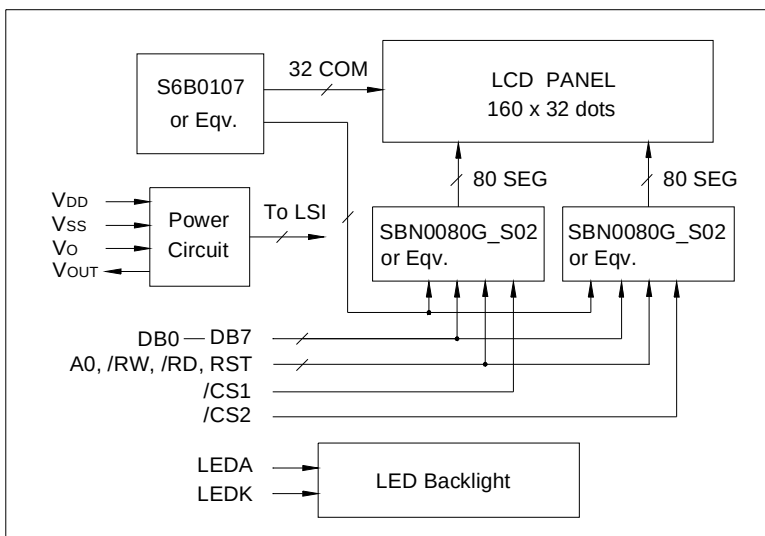
ELECTRICAL CHARACTERISTICS ($V_{DD}=5V\pm0.25V$)

Item	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Input High Voltage	V _{IH}	--	0.7V _{DD}	--	V _{DD}	V
Input Low Voltage	V _{IL}	--	0	--	0.25V _{DD}	V
Output High Voltage	V _{OH}	--	V _{DD} -0.3	--	V _{DD}	V
Output Low Voltage	V _{OL}	--	0	--	0.3	V
Supply Current	I _{DD}	V _{DD} = 5.0V	--	4.5	6.0	mA
LCD Driving Voltage	V _{DD} - V _O	T _a =25°C	--	7.2	--	V

PIN CONNECTIONS

Pin	Symbol	Level	Function
1	A0	H/L	H : Data L : Instruction code
2	/CS2	L	Chip selection for IC2, active "L"
3	/CS1	L	Chip selection for IC1, active "L"
4	/RD(E)	H/L	/RD for 80 MPU, E for 68 MPU
5	/WR(R/W)	H/L	/WR for 80 MPU, R/W for 68 MPU
6	V _{DD}	+5V	Power supply for logic
7	V _{SS}	0V	GND
8	DB0	H/L	Data bus line
9	DB1	H/L	
10	DB2	H/L	
11	DB3	H/L	
12	DB4	H/L	
13	DB5	H/L	
14	DB6	H/L	
15	DB7	H/L	
16	RST	H/L	Reset, H->L:80 MPU, L->H:68 MPU
17	V _O	--	Operating voltage for LCD
18	V _{OUT}	-5V	Output voltage for LCD driving
19	LEDA	+5V	Power supply for LED backlight
20	LEDK	0V	

BLOCK DIAGRAM



LED BACKLIGHT SPECIFICATIONS (Ta=25°C)

Item	Symbol	Typ.	Max.	Unit
Forward Voltage	V _f	3.1	3.3	V
Forward Current	I _f	45	--	mA
LED Color	White			