

DG series

DG-12232 122 x 32 Dots

Mechanical Data

Item	Standard Value	Unit
Module Size	84.0(W) x 44.0(H) x 10.5(T)	mm
Viewing Area	60.5(W) x 18.5(H)	mm
Dot Pixels	122 x 32	dots
Dot Size	0.40 x 0.45	mm
Dot Pitch	0.44 x 0.49	mm

Absolute Maximum Ratings

Item	Symbol	Standard Value			Unit
		Min.	Typ.	Max.	
Supply Voltage for Logic	$V_{DD}-V_{SS}$	--	--	8.0	V
Supply Voltage for LCD Drive	$V_{DD}-V_{SS}$	--	--	16.5	V
Input Voltage	V_i	$V_{SS}-0.3$	--	$V_{DD}+0.3$	V
Operation Temperature	T_{opr}	0	--	50	°C
Storage Temperature	T_{stg}	-20	--	70	°C

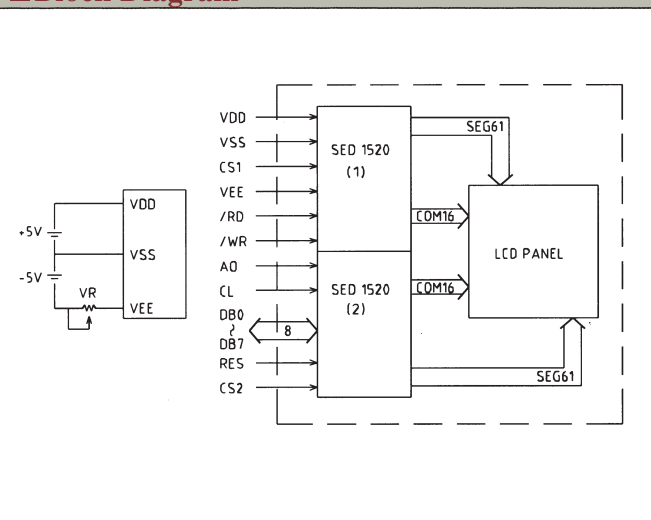
Electrical Characteristics

Item	Symbol	Condition	Standard Value			Unit
			Min.	Typ.	Max.	
LCD Supply Voltage	$V_{DD}-V_{SS}$	--	4.5	5.0	5.5	V
LCD Driver Circuit Power Supply Voltage	$V_{DD}-V_{EE}$	--	--	6.4	--	V
Input Voltage	V_{IH}	--	$V_{SS}+2.0$	--	V_{DD}	V
Input Voltage	V_{IL}	--	V_{SS}	--	$V_{SS}+0.8$	V
Output Voltage	V_{OH}	$I_{OH}=-3.0mA$	$V_{SS}+2.4$	--	--	V
Output Voltage	I_{OH}	$I_{OL}=+3.0mA$	--	--	$V_{SS}+0.4$	V
Input Leakage Current	I_{LI}	--	-1	--	+1	μA
Supply Current	I_{DD}	$V_{DD}-V_{SS}=5.0V$	--	0.6	1.1	mA
EL Backlight Current	I_{EL}	$V_{DD}-V_{SS}=5.0V$	--	0.12/CM	--	mA

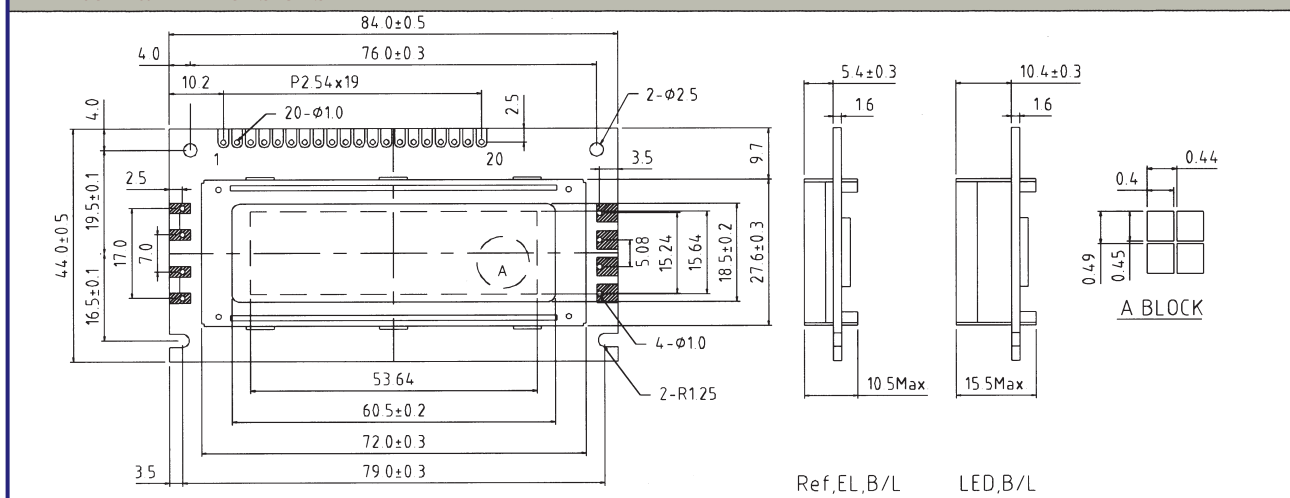
Pin Assignment

No.	Symbol	Level	Function
1	V_{SS}	--	Ground
2	V_{DD}	--	Power Supply for Logic Circuit
3	V_{EE}	--	Power Supply for LCD
4	A0	H/L	L-Instruction, H-Data
5	CS1	L	Chip Enable Active L
6	CS2	L	Chip Enable Active L
7	CL	H/L	External Clock (2KHz)
8	/RD(E)	--	/RD for 80 Series, E for 68 Series
9	/WR (R/W)	--	/WR for 68 Series, R/W for 80 Series
10~17	DB0~DB7	H/L	Data Bus Line
18	Res	H/L	H-80 Series L 68 Series
19	VLED 1	--	Power Supply for LED or EL
20	VLED 2	--	

Block Diagram



External Dimensions



Option

LCD Type								Backlight Type			Built-in Control LSI	
S1	S2	W	N	R	F	M	H	EL	LED	CCFL	Touch Panel	
•	•			•	•		•	•	•			SED1520