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MECHANICAL DATA

ITEM	DIMENSIONS	UNIT
Module Size (W x H x T)	116.0 x 37.0 x 9.4 (10.8 LED)	mm
Viewing Area (W x H)	88.0 x 19.0	mm
Active Area (W x H)	80.6 x 16.28	mm
Dot Size (W x H)	0.38 x 0.47	mm
Dot Pitch (W x H)	0.42 x 0.51	mm

■ ABSOLUTE MAXIMUM RATINGS

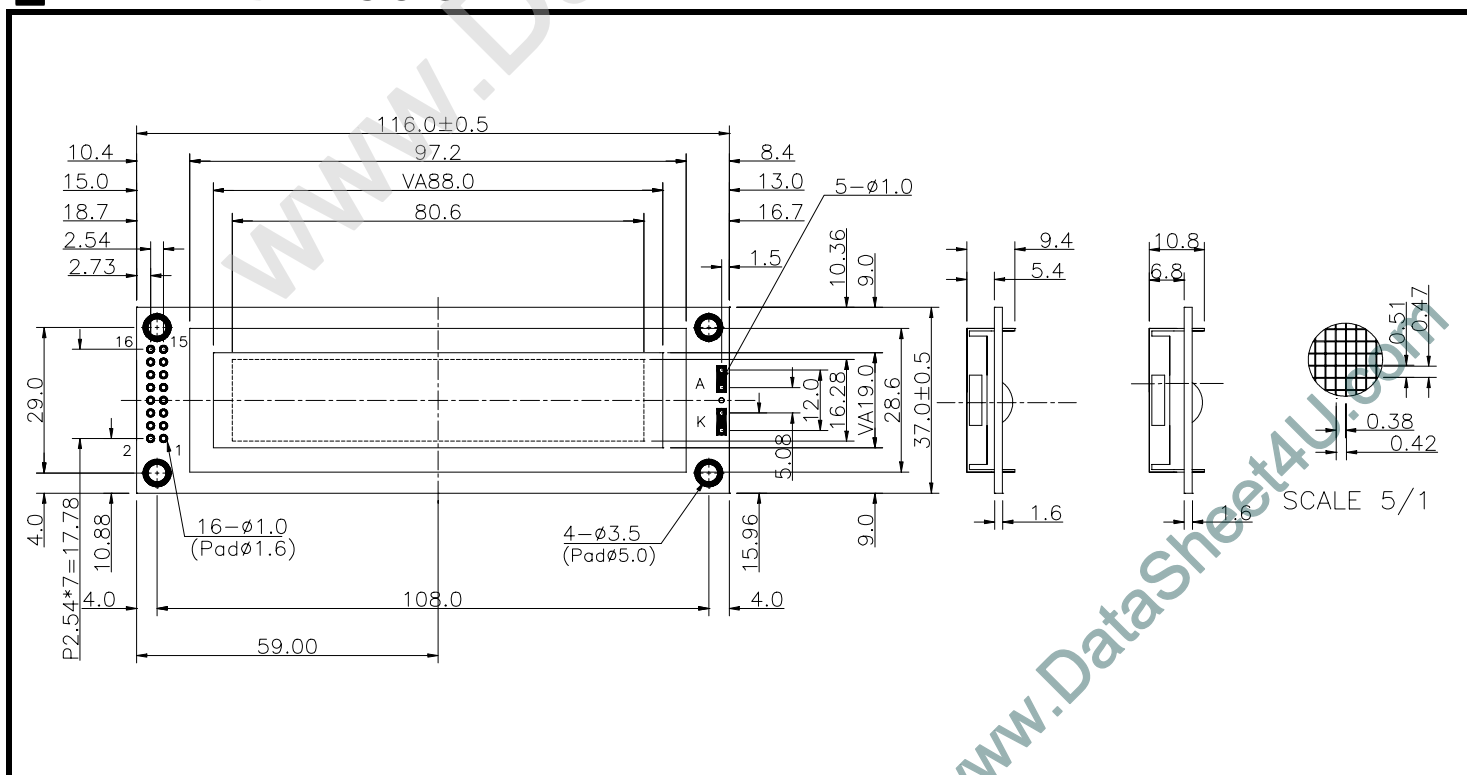
NO.	SYMBOL	LEVEL	FUNCTION
1	V _{SS}	0V	Power Supply Ground
2	V _{DD}	5V	Power Supply Voltage
3	V _O	-	Contrast Adjustment Voltage
4	RS	H/L	Register Select
5	R/W	H/L	H : Read / L : Write
6	E	H→L	Enable Signal
7-14	DB0~DB7	H/L	Data Bus Line
15	A	4.2V	LED Power (+)
16	K	0V	LED Power (-)

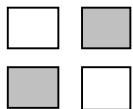
ITEM	SYMBOL	MIN.	TYP.	MAX.	UNIT
Supply Voltage For Logic	VDD-VSS	0	-	7	V
Supply Voltage For LCD Drive	VDD-V ₀	0	-	12	V
Input Voltage	V _I	VSS	-	VDD	V

■ ELECTRICAL CHARACTERISTICS

ITEM		SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Voltage For Logic		V _{DD-VSS}	-	4.5	5	5.5	V
Supply Voltage For LCD		V _{DD-Vo}	V _{DD} =5V Ta=25°C	4.4	4.8	5.2	V
Supply Current		I _{DD}	V _{DD} =5V	-	3	4.5	mA
Input	"HIGH" Level	V _{IH}	-	2.2	-	V _{DD}	V
Voltage	"LOW" Level	V _{IL}	-	-	-	0.6	V
Output	"HIGH" Level	V _{OH}	-	2.4	-	-	V
Voltage	"LOW" Level	V _{OL}	-	-	-	0.4	V

EXTERNAL DIMENSIONS

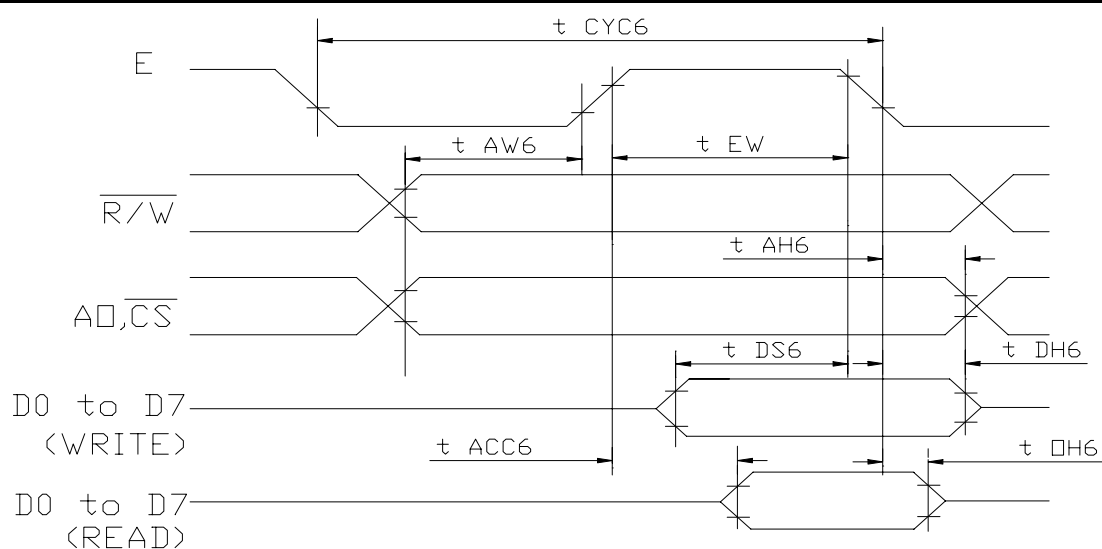




SG19232C (192 DOTS X 32 DOTS)

TIMING CHARACTERISTICS

ITEM		SYMBOL	MIN.	TYP.	MAX.	UNIT.
System Cycle Time		t_{CYC6}	1000	-	-	ns
Address Set-up Time		t_{AW6}	20	-	-	ns
Address Hold Time		t_{AH6}	10	-	-	ns
Data Set-up Time		t_{DS6}	80	-	-	ns
Data Hold Time		t_{DH6}	10	-	-	ns
Output Disable Time		t_{OH6}	10	-	60	ns
Access Time		t_{ACC6}	-	-	90	ns
Enable Pulse Width	Read	t_{EW}	100	-	-	ns
	Write		80	-	-	ns



BLOCK DIAGRAM

