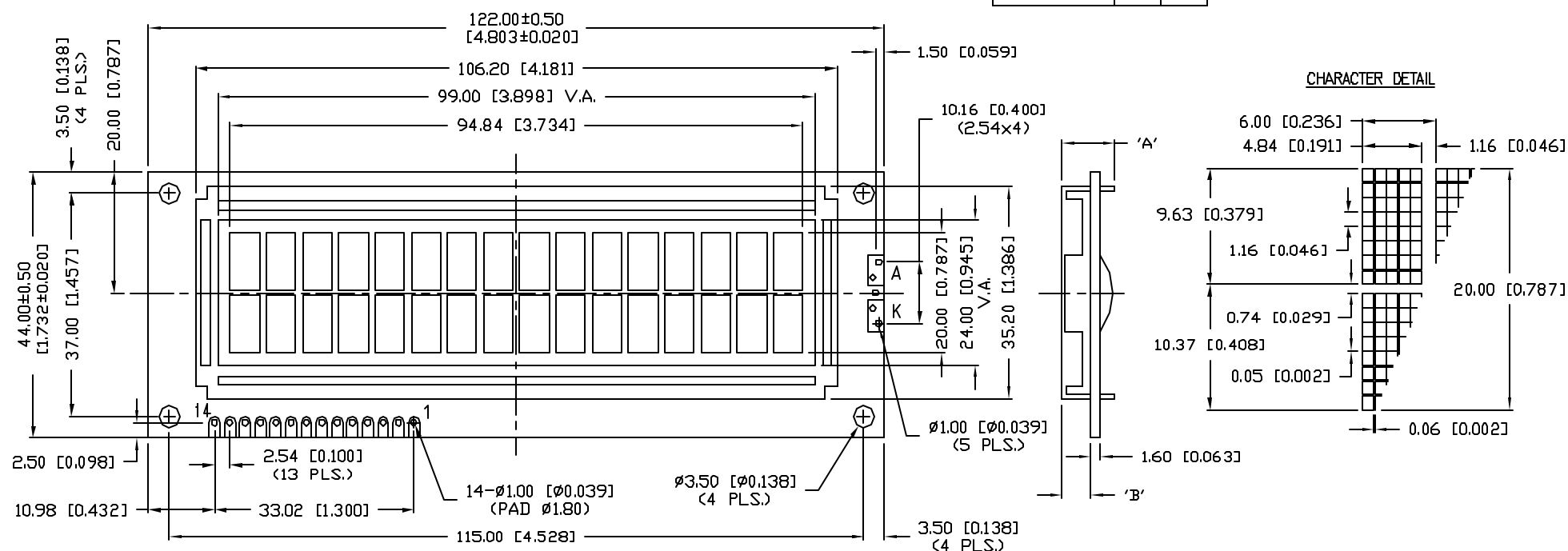


TYPE	DIM.	A	B
WITH BACKLIGHT		13.0	9.0
NO BACKLIGHT		8.8	4.8



CAUTION: STATIC SENSITIVE DEVICE
FOLLOW PROPER E.S.D. HANDLING PROCEDURES
WHEN WORKING WITH THIS PART.

*UNLESS OTHERWISE SPECIFIED TOLERANCE IS $\pm 0.25\text{mm}$ ($\pm 0.010"$)

REV.

PART NUMBER

LCM-S01602DTR/D-3

9.63mm CHARACTER HEIGHT, 16 x 2 CHARACTERS,
5 x 8 DOT MATRIX, LCD MODULE,
TN REFLECTIVE, 1/16 DUTY, 1/5 BIAS.

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RELIABILITY NOTE

OUR MANY YEARS OF EXPERIENCE DATA ACCUMULATION INDICATE THAT SOLDER HEAT IS A MAJOR CAUSE OF EARLY AND FUTURE FAILURE. PLEASE PAY ATTENTION TO YOUR SOLDERING PROCESS.

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DRAWN BY:

CHECKED BY:

APPROVED BY:

DATE: 8-14-98

JD

PAGE: 1 OF 2

SCALE: N/A

SCALE: N/A

PART NUMBER
LCM-S01602DTR/D-3

REV.

REV. E.C.N. NUMBER AND REVISION COMMENTS

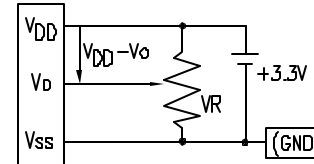
DATE

PIN CONFIGURATION

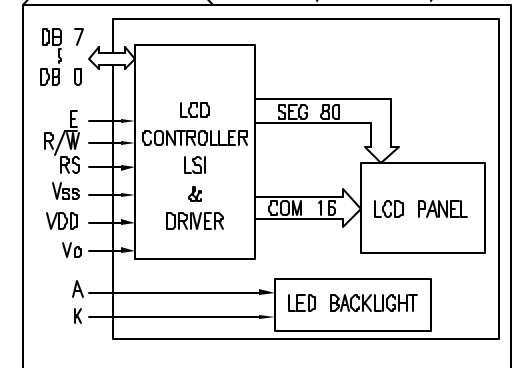
PIN NO.	SYMBOL	LEVEL	FUNCTION	
1	V _{SS}	-	POWER SUPPLY	GND (0V)
2	V _{DD}	-		5V
3	V _O	-		FOR LCD DRIVE
4	RS	H/L	REGISTER SELECT SIGNAL H: DATA INPUT L: INSTRUCTION INPUT	
5	R/W	H/L	H: DATA READ (MODULE-->MPU) L: DATA WRITE (MODULE<--MPU)	
6	E	H,H->L	ENABLE	
7~14	DB0~DB7	H/L	DATA BUS-SOFTWARE SELECTABLE 4 OR 8 BIT MODE.	
15	A	-	ANODE	LED BACKLIGHT
16	K	-	CATHODE	LED BACKLIGHT

V_{DD}-V_O: LCD DRIVING VOLTAGE

VR: 10KΩ-20KΩ



BLOCK DIAGRAM 16 x 2, 1/16 DUTY, 1/5 BIAS



ELECTRICAL CHARACTERISTICS

V_{DD}=2.7V to 4.5V, T_A=25°C

ITEM	SYMBOL	CONDITION	STANDARD VALUE			UNIT
			MIN.	TYP.	MAX.	
SUPPLY VOLTAGE FOR LOGIC	V _{DD} -V _{SS}	-	-	3.3	-	V
SUPPLY CURRENT FOR LOGIC	I _{DD}	V _{DD} =3.3V	-	2.0	3.0	mA
INPUT VOLTAGE	HIGH	V _{IH}	-	0.7V _{DD}	-	V _{DD} V
	LOW	V _{IL}	-0.3	-	0.55	V
OUTPUT VOLTAGE	HIGH	V _{OH}	-	0.75V _{DD}	-	V
	LOW	V _{OL}	-	-	0.2V _{DD}	V
*LED BACKLIGHT	VOLTAGE	V _F	I _F =40mA	-	3.4	3.6 V
	CURRENT	I _F	-	-	40	mA
	POWER CONSUMPTION	P _D	-	-	136	mW
	LUMINOUS	L	I _F =40mA	15	20	cd/m ²
	COLOR	WHITE		-	0.31	- X
				-	0.32	- Y

*ONLY APPLIES TO MODULES WITH BACKLIGHT, PN# LCM-S01602DTR/D-3

ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	TEST CONDITION	STANDARD VALUE		UNIT
SUPPLY VOLTAGE FOR LOGIC	V _{DD} -V _{SS}	T _a =25°C	2.7	4.5	V
SUPPLY VOLTAGE FOR LCD DRIVE	V _{DD} -V _O	-	2.2@50°C	4.3@0°C	V
INPUT VOLTAGE	V _I	T _a =25°C	V _{SS}	V _{DD}	V
OPERATING TEMPERATURE	T _{opr}	LCM-S	0	50	°C
STORAGE TEMPERATURE	T _{stg}	LCM-S	-20	70	°C

*UNLESS OTHERWISE SPECIFIED TOLERANCE IS ±0.25mm (±0.010")

REV.

PART NUMBER

LCM-S01602DTR/D-3

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