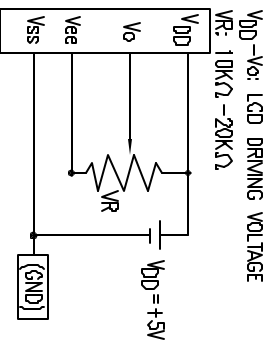


REV.	E.C.N. NUMBER AND REVISION COMMENTS	DATE
A	E.C.N. #10739, & #10BRDR.	5.2.01

□ PIN CONFIGURATION

PIN NO.	SYMBOL	LEVEL	FUNCTION
1	Vss	0V	GND
2	V _{DD}	5V	SUPPLY VOLTAGE FOR LOGIC
3	V ₀	-	CONTRAST VOLTAGE FOR LCD DRIVE(VARIABLE)
4	RD	L	READ SIGNAL
5	WR	L	WRITE SIGNAL
6	CS	L	CHIP SELECT
7	AO	H/L	DATA TYPE SELECT
8-15	DB0~DB7	H/L	DATA BUS
16	RES	L	RESET SIGNAL (NOTE 1)
17	VEE	-	POWER SUPPLY VOLTAGE FOR LCD
18	A	4.2V	ANODE LED BACKLIGHT
19	K	-	CATHODE LED BACKLIGHT
20	(N/C)	-	NO CONNECTION

- NOTES:
- RES IS A SCHMITT TRIGGER INPUT. THE PULSEWIDTH ON RES MUST BE AT LEAST 200ns. PULSES OF MORE THAN A FEW SECONDS WILL CAUSE DC VOLTAGES TO BE APPLIED TO THE LCD PANEL.



V_{DD}-V₀: LCD DRIVING VOLTAGE
VR: 10KΩ - 20KΩ

□ ELECTRICAL CHARACTERISTICS

V_{DD}=4.75V to 5.25V, I_A=25°C

ITEM	SYMBOL	CONDITION	STANDARD VALUE			UNIT
			MIN.	TYP.	MAX.	
SUPPLY VOLTAGE FOR LOGIC	V _{DD} -V _{SS}	-	4.75	5.0	5.25	V
SUPPLY VOLTAGE FOR LCD DRIVE	V _{DD} -V _{EE}	-	-	18.2	-	V
SUPPLY CURRENT FOR LOGIC	I _{DD}	-	-	-	20	mA
INPUT VOLTAGE	V _I	HIGH	V _{IH}	-	V _{DD}	V
		LOW	V _{IL}	0	0.8	V
OUTPUT VOLTAGE	V _O	HIGH	V _{OH}	I _O H = -3.0mA	-	V
		LOW	V _{OL}	I _O L = 3.0mA	2.4	V
*LED BACKLIGHT	POWER CONSUMPTION	IF	-	-	560	mA
		IF=560mA	-	-	-	-
LUMINOUS COLOR	L	IF=560mA	60	-	-	cd/m ²
		-	-	570	-	nm

*ONLY APPLIES TO MODULES WITH BACKLIGHT

*UNLESS OTHERWISE SPECIFIED TOLERANCES PER DECIMAL PRECISION ARE X±1 (E0.000), XX±0.5 (E0.020), XXX±0.127 (E0.010), XXXX±0.127 (E0.005) LEAD SIZE=E0.05 (E0.002), LEAD LENGTH=E0.75 (E0.030), MIN=-0.00

MAX=+0.00 DECIMAL PRECISION

□ ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	TEST CONDITION	STANDARD VALUE		UNIT
			MIN	MAX	
SUPPLY VOLTAGE FOR LOGIC	V _{DD} -V _{SS}	Td=25°C	0	7.0	V
SUPPLY VOLTAGE FOR LCD DRIVE	V _{DD} -V _{EE}	-	17.2@40°C	19.2@0°C	V
INPUT VOLTAGE	V _I	Td=25°C	V _{SS}	V _{DD}	V
		LCM-S	0	50	°C
OPERATING TEMPERATURE	Topr	LCM-H	-20	70	°C
		LCM-S	-20	70	°C
STORAGE TEMPERATURE	Tstg	LCM-H	-30	85	°C
		LCM-S	-30	85	°C

REV. A
PART NUMBER
LCM-X160160GXX

160 x 160 DOT MATRIX GRAPHIC MODULE,
1/160 DUTY, STN WITH NEGATIVE CHARGE PUMP.

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



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